#### Overview

Unit 4 Chemical Property	y Trend
Played on	14 Nov 2019
Hosted by	anonymous
Played with	25 players
Played	12 of 12

Overall Performance	
Total correct answers (%)	56,679
Total incorrect answers (%)	43,339
Average score (points)	7002,3

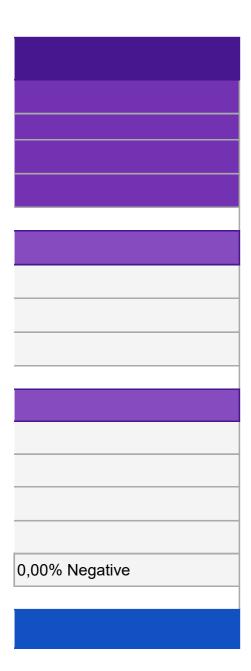
Feedback	
Number of responses	0
How fun was it? (out of 5)	0,00 o
Did you learn something?	0,00%
Do you recommend it?	0,00%
How do you feel?	•

Switch tabs/pages to view other result breakdown

## Overview

%			
%			
32 points			
ut of 5			
Yes	0,00% No		
Yes	0,00% No		
0,00% Positive	•	0,00% Neutral	<b>O</b>

#### Overview



# **Unit 4 Chemical Property Trend**

Rank Players  1 bri 2 adelle 3 MADDIE 4 Sam Sweetser 5 Shepard	
1 bri 2 adelle 3 MADDIE 4 Sam Sweetser	
2 adelle 3 MADDIE 4 Sam Sweetser	
3 MADDIE 4 Sam Sweetser	
4 Sam Sweetser	
5 Shenard	
Oliopara	
6 Hudson Krawford	
7 caroline	
8 reagan	
9 netta	
10 Mikayla :-)	
11 Noah	
12 Karlee	
13 braxton	
14 Chris	
15 aj	
16 Cole	
17 Parker	
18 Kyle	
19 Mithil	
20 Keiona	
21 Tyler the Great	
22 Max	

#### Final Scores

23	Kyle Daniels
24	G
25	Hudson

#### Final Scores

Total Score (points)	Correct Answers	Incorrect Answers
16365	12	0
16201	12	0
16166	12	0
15585	12	0
14143	11	1
10893	10	2
9381	9	3
8299	8	4
7494	7	5
6293	8	4
6015	7	5
5321	7	5
5226	7	5
4798	7	5
4677	5	7
4400	6	6
4229	6	6
3813	5	7
3793	4	8
3601	4	8
3080	4	8
2540	3	9

#### Final Scores

3	1978
1	767
0	0

# **Unit 4 Chemical Property Trend**

Kahoot! Summary		
Rank	Players	
1	bri	
2	adelle	
3	MADDIE	
4	Sam Sweetser	
5	Shepard	
6	Hudson Krawford	
7	caroline	
8	reagan	
9	netta	
10	Mikayla :-)	
11	Noah	
12	Karlee	
13	braxton	
14	Chris	
15	aj	

16	Cole
17	Parker
18	Kyle
19	Mithil
20	Keiona
21	Tyler the Great
22	Max
23	Kyle Daniels
24	G
25	Hudson

	Ranoot: Sammary	
Total Score (points)	Q1	
16365	1000	
16201	1000	
16166	905	
15585	762	
14143	748	
10893	947	
9381	893	
8299	858	
7494	920	
6293	768	
6015	887	
5321	815	
5226	838	
4798	848	
4677	907	

4400	818
4229	807
3813	892
3793	930
3601	868
3080	853
2540	813
1978	665
767	0
0	0

Which of the following is a chemical property?	Q2
flammability	1100
flammability	1088
flammability	1035
flammability	1037
flammability	1082
flammability	982
flammability	1063
flammability	1063
flammability	1023
flammability	0
flammability	0
flammability	815
flammability	758
flammability	0
flammability	0

flammability	847
flammability	0
flammability	0
flammability	1043
flammability	987
flammability	0
flammability	970
flammability	0
	767
	0

Which element is the most reactive nonmetal?	Q3
fluorine	1200
fluorine	1200
fluorine	1178
fluorine	1155
fluorine	1200
fluorine	1178
fluorine	1150
fluorine	1117
fluorine	1132
sulfur	617
sulfur	827
fluorine	927
fluorine	1005
sulfur	590
sulfur	935

fluorine	957
phosphorus	598
phosphorus	520
fluorine	0
fluorine	1053
phosphorus	0
fluorine	0
phosphorus	0
fluorine	0
	0

Which element is the most reactive metal?	Q4
francium	1300
francium	1300
francium	1280
francium	1280
francium	1300
francium	1265
francium	1223
francium	1083
francium	1247
francium	857
francium	987
francium	817
francium	848
francium	785
francium	1023

francium	0
francium	912
francium	675
sodium	878
francium	0
sodium	0
sodium	757
sodium	758
	0
	0

What determines an elements chemical properties?	Q5
number of valence electrons	1400
number of valence electrons	1400
number of valence electrons	1387
number of valence electrons	1355
number of valence electrons	1400
number of valence electrons	1323
number of valence electrons	1265
number of valence electrons	1195
number of valence electrons	1282
number of valence electrons	790
number of valence electrons	898
number of valence electrons	0
number of valence electrons	0
number of valence electrons	880
number of valence electrons	1075

	0
number of valence electrons	762
number of valence electrons	1058
number of valence electrons	0
	693
number of orbitals	0
number of valence electrons	0
number of valence electrons	0
	0
	0

lonic bonding occurs when	Q6
metals transfer of electron to nonmetals	1500
metals transfer of electron to nonmetals	1500
metals transfer of electron to nonmetals	1490
metals transfer of electron to nonmetals	1453
metals transfer of electron to nonmetals	1500
metals transfer of electron to nonmetals	1377
metals transfer of electron to nonmetals	1225
metals transfer of electron to nonmetals	1108
metals transfer of electron to nonmetals	0
metals transfer of electron to nonmetals	877
metals transfer of electron to nonmetals	847
metals transfer protons with nonmetals	555
metals share electrons with nonmetals	570
metals transfer of electron to nonmetals	0
metals transfer of electron to nonmetals	0

metals share electrons with nonmetals	555
metals transfer of electron to nonmetals	0
metals transfer of electron to nonmetals	0
metals share electrons with other metals	0
metals transfer of electron to nonmetals	0
metals share electrons with other metals	0
	0
	555
	0
	0

Which of the following atoms will form an ionic bond?	Q7
lithium and fluorine	1425
lithium and fluorine	1450
lithium and fluorine	1488
lithium and fluorine	1325
lithium and fluorine	1423
lithium and fluorine	0
lithium and fluorine	0
lithium and fluorine	0
calcium and nickel	0
lithium and fluorine	1002
lithium and fluorine	0
lithium and fluorine	0
lithium and fluorine	0
oxygen and nitrogen	0
gold and mercury	0

lithium and fluorine	0
gold and mercury	0
gold and mercury	0
oxygen and nitrogen	0
	0
gold and mercury	0
	0
lithium and fluorine	0
calcium and nickel	0
	0

When atoms gain or lose electrons to become ions, they satisfy	Q8
Octet Rule	1492
Octet Rule	1463
Octet Rule	1490
Octet Rule	1438
Octet Rule	1490
Coulomb's Law	918
Coulomb's Law	803
Coulomb's Law	0
Hund's Rule	0
Octet Rule	0
Coulomb's Law	672
Coulomb's Law	0
Coulomb's Law	0
Coulomb's Law	552
Coulomb's Law	0

Coulomb's Law	0
Coulomb's Law	620
Coulomb's Law	0
Coulomb's Law	0
Hund's Rule	0
Coulomb's Law	743
	0
Coulomb's Law	0
	0
	0

Covalent Bonding occurs when	Q9
nonmetals share electrons	1488
nonmetals share electrons	1433
nonmetals share electrons	1492
nonmetals share electrons	1472
nonmetals share electrons	1500
nonmetals share electrons	0
nonmetals share electrons	0
metals share electrons	0
metals share electrons	0
metals share electrons	825
nonmetals share electrons	897
metals share electrons	797
metals share electrons	610
nonmetals share electrons	0
metals share electrons	737

metals share electrons	588
nonmetals share electrons	0
metals share electrons	668
metals share protons	0
metals share electrons	0
nonmetals share electrons	822
metals share electrons	0
metals share electrons	0
	0
	0

Which of the following is likely to form a covalent bond?	Q10
carbon and oxygen	1487
carbon and oxygen	1397
carbon and oxygen	1483
carbon and oxygen	1463
carbon and oxygen	1500
neon and argon	800
sodium and chlorine	837
neon and argon	0
sodium and chlorine	0
carbon and oxygen	0
sodium and chlorine	0
carbon and oxygen	0

carbon and oxygen	0
neon and argon	0
carbon and oxygen	0
neon and argon	0
sodium and chlorine	0
carbon and oxygen	0
	0
neon and argon	0
	0
	0

Which combination will result in the fastest chemical reaction?	Q11
large metal with small nonmetal	1490
large metal with small nonmetal	1487
large metal with small nonmetal	1478
large metal with small nonmetal	1345
large metal with small nonmetal	0
large metal with small nonmetal	1023
large metal with small nonmetal	922
small metal with small nonmetal	885
small metal with large nonmetal	872
large metal with large nonmetal	557
small metal with large nonmetal	0
small metal with large nonmetal	0
large metal with large nonmetal	597
small metal with large nonmetal	525
small metal with large nonmetal	0

small metal with large nonmetal	635
small metal with small nonmetal	530
small metal with large nonmetal	0
large metal with large nonmetal	942
	0
small metal with large nonmetal	662
	0
small metal with large nonmetal	0
	0
	0

All of the following are examples of a chemical change EXCEPT	Q12
dissolves in water	1483
dissolves in water	1483
dissolves in water	1460
dissolves in water	1500
emits light	1000
dissolves in water	1080
dissolves in water	0
dissolves in water	990
dissolves in water	1018
dissolves in water	0
change in color	0
emits light	595
dissolves in water	0
dissolves in water	618
change in color	0

dissolves in water	0
dissolves in water	0
change in color	0
dissolves in water	0
change in color	0
dissolves in water	0
	0
change in color	0
	0
	0

Which two elements will have similar chemical properties?
F and Cl
Na  and Mg
F and Cl
F and Cl
Na  and Mg
C and Cl
F and Cl
H and He
F and Cl
Na  and Mg

H and He
C and C
H and He
Na  and Mg

# Unit 4 Ch

## 1 Quiz

Correct answers

Players correct (

Question duration

## **Answer Sun**

Answer options

Is answer correct

Number of answ

Average time tal

## **Answer Deta**

Players

Chris

Cole

G

Hudson

**Hudson Krawfor** 

Karlee

Keiona

Kyle

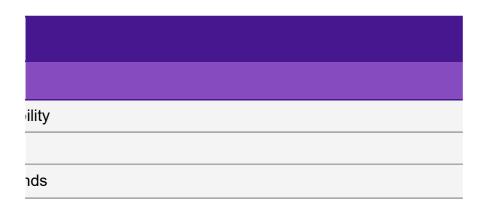
Kyle Daniels

**MADDIE** 

Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

emical Property Trend	
Which of the following is a chemical pr	operty?
;	flammab
(%)	92,00%
n	30 secor
nmary	
xt?	
vers received	
ken to answer (seconds)	
ails	Answer
	<b>√</b> □
	<b>√</b> □
	Х
	Х
rd D	<b>√</b> □
	<b>√</b> □

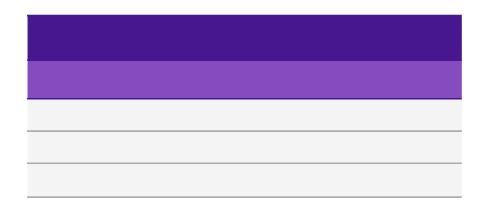
<b>√</b> □
<b>√</b> □
<b>√</b> 0
<b>√</b> □





	Score (p
flammability	848
flammability	818
	0
	0
flammability	947
flammability	815
flammability	868
flammability	892
flammability	665
flammability	905

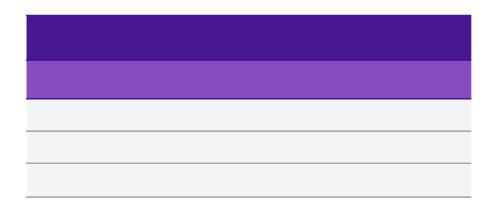
flammability		
flammability 930 flammability 887 flammability 807 flammability 762 flammability 748 flammability 853 flammability 1000 flammability 907 flammability 838 flammability 1000 flammability 907 flammability 907 flammability 909	flammability	813
flammability flamm	flammability	768
flammability flamm	flammability	930
flammability 762  flammability 748  flammability 853  flammability 1000  flammability 907  flammability 838  flammability 1000  flammability 993  flammability 920	flammability	887
flammability 748  flammability 853  flammability 1000  flammability 907  flammability 838  flammability 1000  flammability 993  flammability 920	flammability	807
flammability 853  flammability 1000  flammability 907  flammability 838  flammability 1000  flammability 993  flammability 920	flammability	762
flammability 1000 flammability 907 flammability 838 flammability 1000 flammability 893 flammability 920	flammability	748
flammability 907 flammability 838 flammability 1000 flammability 893 flammability 920	flammability	853
flammability 838 flammability 1000 flammability 893 flammability 920	flammability	1000
flammability 1000 flammability 893 flammability 920	flammability	907
flammability 893 flammability 920	flammability	838
flammability 920	flammability	1000
	flammability	893
flammability 858	flammability	920
	flammability	858



flammability	•
<b>√</b> □	
23	
8,53	

oints)	Current
	848
	818
	0
	0
	947
	815
	868
	892
	665
	905
	<del></del>

813
768
930
887
807
762
748
853
1000
907
838
1000
893
920
858



melting		•
Х		
	0	
	0,00	

Answer ti
9,1
10,9
30
30
3,2
11,1
7,9
6,5
20,1
5,7

11,2
13,9
4,2
6,8
11,6
14,3
15,1
8,8
0,4
5,6
9,7
0,3
6,4
4,8
8,5
1

solubility	
Х	
	0
	0,00
ime (seconds)	
,	

# Unit 4 Ch

## 2 Quiz

Correct answers

Players correct (

Question duration

## **Answer Sun**

Answer options

Is answer correct

Number of answ

Average time tal

# **Answer Deta**

Players

Chris

Cole

G

Hudson

**Hudson Krawfor** 

Karlee

Keiona

Kyle

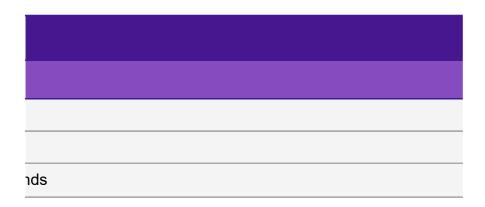
Kyle Daniels

MADDIE

Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

emical Property Trend	
Which element is the most reactive nonmetal?	
3	fluorine
(%)	64,00%
วท	30 secor
nmary	
	<b>A</b>
pt?	
ers received	
ken to answer (seconds)	
ails	
	Answer
	X
	<b>√</b> □
	<b>√</b> □
	Х
rd .	<b>√</b> □
	<b>√</b> □
	√□
	Х
	Х
	<b>√</b> □

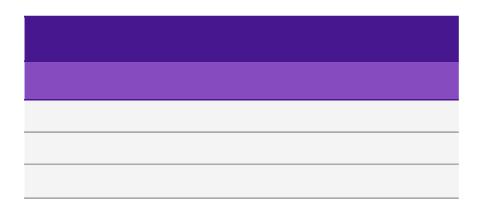
<b>√</b> □
Х
<b>√</b> □
Х
Х
<b>√</b> □
<b>√</b> □
Х
<b>√</b> □
Х
<b>√</b> □





	Score (p
sulfur	0
fluorine	847
fluorine	767
	0
fluorine	982
fluorine	815
fluorine	987
phosphorus	0
phosphorus	0
fluorine	1035

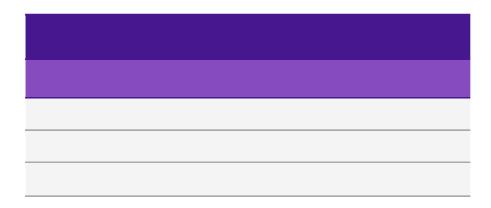
fluorine	970
sulfur	0
fluorine	1043
sulfur	0
phosphorus	0
fluorine	1037
fluorine	1082
phosphorus	0
fluorine	1088
sulfur	0
fluorine	758
fluorine	1100
fluorine	1063
fluorine	1023
fluorine	1063





oints)	Current
	848
	1665
	767
	0
	1929
	1630
	1855
	892
	665
	1940

1783
768
1973
887
807
1799
1830
853
2088
907
1596
2100
1956
1943
1921



fluorine		-
<b>√</b> □		
	16	
	6,91	

Total Score (points)	Answer ti
	29,9
	15,2
	14
	30
	7,1
	17,1
	6,8
	11,5
	25,5
	3,9

7,8
29,3
3,4
25,6
3,4
3,8
1,1
5,3
0,7
4,8
20,5
0,2
2,2
4,6
2,2

sulfur	
Х	
· · · · · · · · · · · · · · · · · · ·	1
	4
	22,40
me (seconds)	

# Unit 4 Ch

## 3 Quiz

Correct answers

Players correct (

Question duration

## **Answer Sun**

Answer options

Is answer correct

Number of answ

Average time tal

# **Answer Deta**

Players

Chris

Cole

G

Hudson

**Hudson Krawfor** 

Karlee

Keiona

Kyle

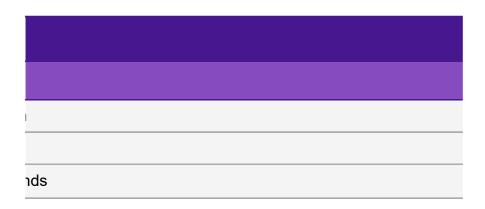
Kyle Daniels

**MADDIE** 

Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

emical Property Trend	
Which element is the most reactive n	netal?
;	francium
(%)	76,00%
on	30 secon
nmary	
xt?	
ers received	
ken to answer (seconds)	
ails	Anguar
	Answer
	<b>√</b> □
	√□
	X
	X
.d	<b>√</b> □
	X
	<u>√</u>

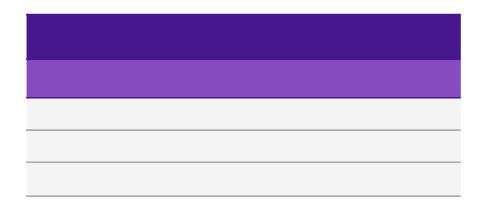
Х
<b>√</b> Ω
Х
<b>√</b> Ω
<b>√</b> □
<b>√</b> Ω
<b>√</b> □
Х
<b>√</b> □
<b>√</b> Ω
<b>√</b> □
<b>√</b> □
<b>√</b> Ω
<b>√</b> Ω
<b>√</b> Ω



francium	<b>*</b>
<b>√</b> □	
19	9
9,7	1

	Score (p
francium	590
francium	957
	0
	0
francium	1178
francium	927
francium	1053
francium	520
sodium	0
francium	1178

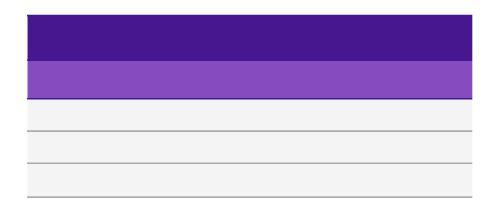
sodium	0
francium	617
sodium	0
francium	827
francium	598
francium	1155
francium	1200
sodium	0
francium	1200
francium	935
francium	1005
francium	1200
francium	1150
francium	1132
francium	1117





oints)	Current
	1438
	2622
	767
	0
	3107
	2557
	2908
	1412
	665
	3118

1783
1385
1973
1714
1405
2954
3030
853
3288
1842
2601
3300
3106
3075
3038
-



copper	_
X	
0	
0,00	

Total Score (points)	Answer ti
	24,6
	14,6
	30
	30
	1,3
	16,4
	8,8
	28,8
	22,6
	1,3

9,9
23
3,7
10,4
24,1
2,7
0,3
15,6
0,2
3,9
11,7
0,3
3
4,1
5

aluminum	
X	
	0
	0,00
	3,33
me (seconds)	

# Unit 4 Ch

# 4 Quiz

Correct answers

Players correct (

Question duration

## **Answer Sun**

Answer options

Is answer correct

Number of answ

Average time tal

# **Answer Deta**

Players

Chris

Cole

G

Hudson

**Hudson Krawfor** 

Karlee

Keiona

Kyle

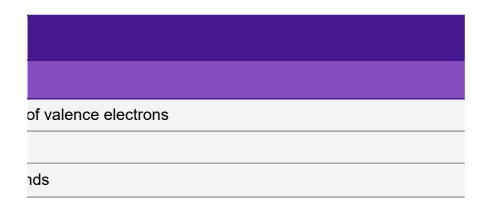
Kyle Daniels

**MADDIE** 

Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

emical Property Trend	
What determines an elements chen	nical properties?
;	number
(%)	80,00%
on	30 secon
nmary	
	<u> </u>
pt?	
vers received	
ken to answer (seconds)	
ails	Answer
	<b>√</b> □
	X
	Х
	Х
d	<b>√</b> □
	<b>√</b> □
	X
	<b>√</b> □
	<b>√</b> □
	√□

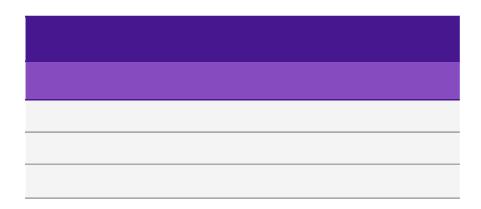
<b>√</b> □
<b>√</b> □
Х
<b>√</b> □
<b>V</b> L





	Score (p
number of valence electrons	785
	0
	0
	0
number of valence electrons	1265
number of valence electrons	817
	0
number of valence electrons	675
number of valence electrons	758
number of valence electrons	1280

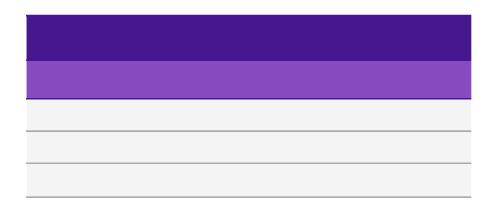
number of valence electrons	757
number of valence electrons	857
number of valence electrons	878
number of valence electrons	987
number of valence electrons	912
number of valence electrons	1280
number of valence electrons	1300
number of orbitals	0
number of valence electrons	1300
number of valence electrons	1023
number of valence electrons	848
number of valence electrons	1300
number of valence electrons	1223
number of valence electrons	1247
number of valence electrons	1083



number of valence electrons	•
<b>√</b> □	
20	
10,02	

oints)	Current
	2223
	2622
	767
	0
	4372
	3374
	2908
	2087
	1423
	4398

2540
2242
2851
2701
2317
4234
4330
853
4588
2865
3449
4600
4329
4322
4121



number of orbitals	•
X	
1	
19,90	

Total Score (points)	Answer ti
	18,9
	30
	30
	30
	2,1
	29
	30
	25,5
	14,5
	1,2

14,6
14,6
7,3
6,8
11,3
1,2
0,3
19,9
0,4
4,6
27,1
0,2
4,6
3,2
13

number of neutrons	
Х	
	0
	0,00
ime (seconds)	
(	

# Unit 4 Ch

## 5 Quiz

Correct answers

Players correct (

Question duration

## **Answer Sun**

Answer options

Is answer correct

Number of answ

Average time tal

## **Answer Deta**

Players

Chris

Cole

G

Hudson

**Hudson Krawfor** 

Karlee

Keiona

Kyle

Kyle Daniels

**MADDIE** 

Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

emical Property Trend	
lonic bonding occurs when	
;	metals tr
(%)	64,00%
n	30 secor
nmary	
iniai y	
xt?	
ers received	
ken to answer (seconds)	
	·
ails	
	Answer
	<b>√</b> □
	Х
	Х
	Х
.d	✓□
	Х
	√□
	<b>√</b> □
	Х
	√□

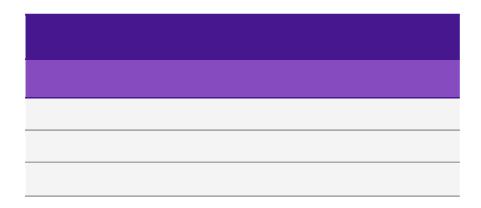
Х
<b>√</b> Ω
Х
<b>√</b> Ω
<b>√</b> Ω
<b>√</b> Ω
<b>√</b> Ω
Х
<b>√</b> Ω
<b>√</b> □
Х
<b>√</b> □
<b>√</b> □
<b>√</b> Ω
<b>√</b> □

ansfer of electron to nonmetals	
nds	

metals transfer of electron to nonmetals	<b>*</b>
<b>√</b> □	
1	6
9,9	6

	Score (p
metals transfer of electron to nonmetals	880
metals share electrons with nonmetals	0
	0
	0
metals transfer of electron to nonmetals	1323
metals transfer protons with nonmetals	0
metals transfer of electron to nonmetals	693
metals transfer of electron to nonmetals	1058
	0
metals transfer of electron to nonmetals	1387

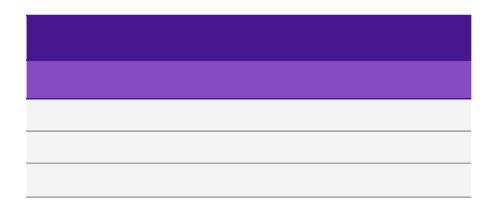
	0
metals transfer of electron to nonmetals	790
metals share electrons with other metals	0
metals transfer of electron to nonmetals	898
metals transfer of electron to nonmetals	762
metals transfer of electron to nonmetals	1355
metals transfer of electron to nonmetals	1400
metals share electrons with other metals	0
metals transfer of electron to nonmetals	1400
metals transfer of electron to nonmetals	1075
metals share electrons with nonmetals	0
metals transfer of electron to nonmetals	1400
metals transfer of electron to nonmetals	1265
metals transfer of electron to nonmetals	1282
metals transfer of electron to nonmetals	1195



metals share electrons with other metals		•
X		
	2	
	13,10	

oints)	Current
	3103
	2622
	767
	0
	5695
	3374
	3601
	3145
	1423
	5785

2540
3032
2851
3599
3079
5589
5730
853
5988
3940
3449
6000
5594
5604
5316



metals share electrons with nonmetals		•
X		
	2	
	26,80	

Total Score (points)	Answer ti
	19,2
	27,1
	30
	30
	4,6
	28,9
	18,4
	8,5
	30
	0,8

30
24,6
5,9
18,1
26,3
2,7
0,4
20,3
0,3
7,5
26,5
0,4
8,1
7,1
12,3

metals transfer protons with nonmetals	
X	
	1
28.	,90
me (seconds)	

# Unit 4 Ch

## 6 Quiz

Correct answers

Players correct (

Question duration

## **Answer Sun**

Answer options

Is answer correct

Number of answ

Average time tal

## **Answer Deta**

Players

Chris

Cole

G

Hudson

**Hudson Krawfor** 

Karlee

Keiona

Kyle

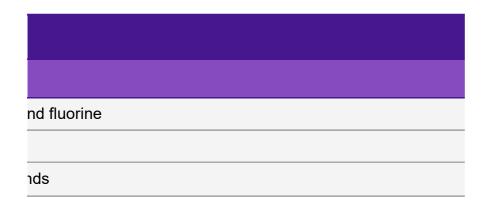
Kyle Daniels

MADDIE

Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

emical Property Trend	
Which of the following atoms will form an ionic	bond?
;	lithium a
(%)	56,00%
n	30 secor
nmary	
	<b>A</b>
pt?	
/ers received	
ken to answer (seconds)	
ails	
	Answer
	Х
	√0
	Х
	Х
rd	<b>√</b> □
	<b>√</b> □
	Х
	Х
	<b>√</b> □

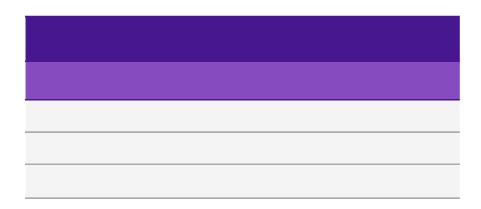
Х
<b>√</b> Ω
Х
<b>√</b> Ω
Х
<b>√</b> □
<b>√</b> □
Х
<b>√</b> □
Х
<b>√</b> □
<b>√</b> □
<b>√</b> □
Х
<b>√</b> □



calcium and nickel	<b>*</b>
X	
2	
23,00	

	Score (p
oxygen and nitrogen	0
lithium and fluorine	555
calcium and nickel	0
	0
lithium and fluorine	1377
lithium and fluorine	555
	0
gold and mercury	0
lithium and fluorine	555
lithium and fluorine	1490

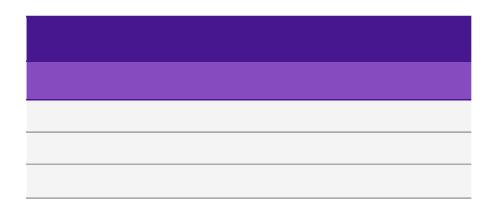
	0
lithium and fluorine	877
oxygen and nitrogen	0
lithium and fluorine	847
gold and mercury	0
lithium and fluorine	1453
lithium and fluorine	1500
gold and mercury	0
lithium and fluorine	1500
gold and mercury	0
lithium and fluorine	570
lithium and fluorine	1500
lithium and fluorine	1225
calcium and nickel	0
lithium and fluorine	1108



oxygen and nitrogen	•
X	
2	
15,40	

oints)	Current
	3103
	3177
	767
	0
	7072
	3929
	3601
	3145
	1978
	7275

2540
3909
2851
4446
3079
7042
7230
853
7488
3940
4019
7500
6819
5604
6424



lithium and fluorine	-
<b>√</b> □	
14	
15,03	

Total Score (points)	Answer ti
	28,6
	26,7
	23
	30
	7,4
	26,7
	30
	22,9
	26,7
	0,6

30
25,4
2,2
27,2
9,8
2,8
0,4
10,8
0,4
12,1
25,8
0,3
16,5
23
23,5

gold and mercury	
gold and morodry	
	X
	4
	12.00
	13,90
me (seconds)	

# Unit 4 Ch

## 7 Quiz

Correct answers

Players correct (

Question duration

## **Answer Sun**

Answer options

Is answer correct

Number of answ

Average time tal

## **Answer Deta**

Players

Chris

Cole

G

Hudson

**Hudson Krawfor** 

Karlee

Keiona

Kyle

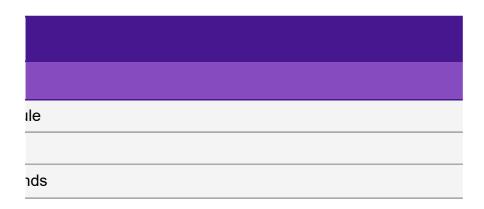
Kyle Daniels

**MADDIE** 

Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

emical Property Trend	
When atoms gain or lose electrons to become ions,	, they satisfy
;	Octet Ru
(%)	24,00%
on	30 secor
nmary	
	<u> </u>
pt?	
vers received	
ken to answer (seconds)	
ails	
	Answer
	X
	×
	Х
	Х
d	X
	Х
	Х
	Х
	Х
	<b>√</b> 1

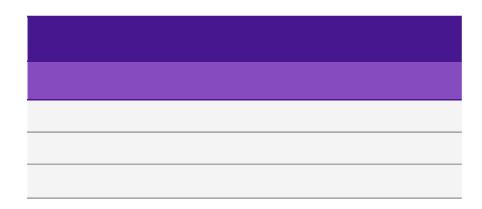
Х
<b>√</b> □
Х
Х
Х
<b>√</b> □
<b>√</b> Ω
Х
<b>√</b> ∆
Х
Х
<b>√</b> □
Х
Х
Х



Hund's Rule		<b>*</b>
X		
	2	
	10,55	

	Score (p
Coulomb's Law	0
Coulomb's Law	0
	0
	0
Coulomb's Law	0
Coulomb's Law	0
Hund's Rule	0
Coulomb's Law	0
Coulomb's Law	0
Octet Rule	1488

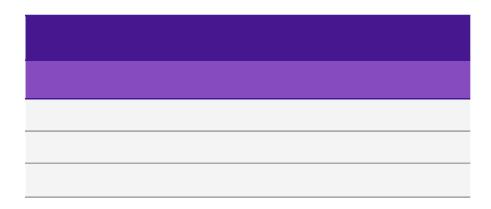
	0
Octet Rule	1002
Coulomb's Law	0
Coulomb's Law	0
Coulomb's Law	0
Octet Rule	1325
Octet Rule	1423
Coulomb's Law	0
Octet Rule	1450
Coulomb's Law	0
Coulomb's Law	0
Octet Rule	1425
Coulomb's Law	0
Hund's Rule	0
Coulomb's Law	0



Coulomb's Law	•
X	
14	
13,42	

oints)	Current
-onto	Carrone
	3103
	3177
	767
	0
	7072
	3929
	3601
	3145
	1978
	8763

2540
4911
2851
4446
3079
8367
8653
853
8938
3940
4019
8925
6819
5604
6424
-



Octet Rule			-
	<b>√</b> □		
		6	
		7,87	

Total Score (points)	Answer ti
	29,7
	14,9
	30
	30
	4,6
	22,9
	10,7
	5,7
	20,8
	0,7

30
23,9
2,1
27,7
6,9
10,5
4,6
10,4
3
4,6
24,6
4,5
2,6
10,4
10,4

Uncertainty Principle	
X	
	0
	0,00
me (seconds)	

	_

# Unit 4 Ch

### 8 Quiz

Correct answers

Players correct (

Question duration

### **Answer Sun**

Answer options

Is answer correct

Number of answ

Average time tal

## **Answer Deta**

Players

Chris

Cole

G

Hudson

**Hudson Krawfor** 

Karlee

Keiona

Kyle

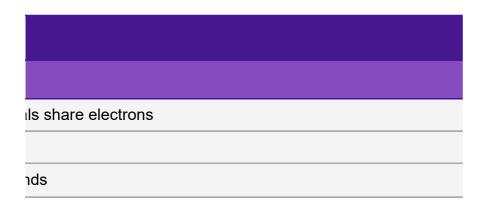
Kyle Daniels

**MADDIE** 

Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

emical Property Trend	
Covalent Bonding occurs when	
}	nonmeta
(%)	44,00%
on	30 secor
nmary	
	<b>A</b>
pt?	
vers received	
ken to answer (seconds)	
ails	
	Answer
	<b>√</b> □
	X
	Х
	X
.d	<b>√</b> □
	Х
	Х
	X
	Х
	<b>√</b> □

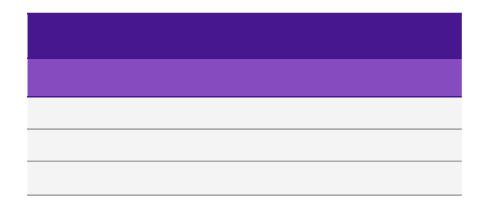
Х
Х
Х
<b>√</b> □
Х
Х
<b>√</b> □
<b>√</b> □
Х
Х



nonmetals share protons	•
X	
0	
0,00	

	Score (
nonmetals share electrons	552
metals share electrons	0
	0
	0
nonmetals share electrons	918
metals share electrons	0
nonmetals share electrons	1490

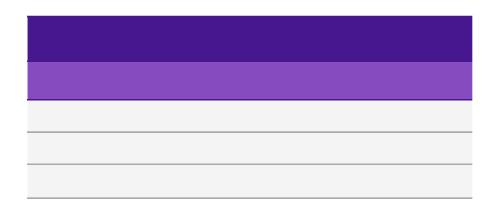
metals share electrons	0
metals share electrons	0
metals share protons	0
nonmetals share electrons	672
nonmetals share electrons	620
nonmetals share electrons	1438
nonmetals share electrons	1490
nonmetals share electrons	743
nonmetals share electrons	1463
metals share electrons	0
metals share electrons	0
nonmetals share electrons	1492
nonmetals share electrons	803
metals share electrons	0
metals share electrons	0



metals share electrons	•	
X		
	11	
15	5,58	

oints)	Curren
	3655
	3177
	767
	0
	7990
	3929
	3601
	3145
	1978
	10253

2540
4911
2851
5118
3699
9805
10143
1596
10401
3940
4019
10417
7622
5604
6424



metals share protons	•
X	
1	
2,50	

Total Score (points)	Answer ti
	26,9
	12,9
	30
	30
	4,9
	15,1
	6,9
	19,5
	23,3
	0,6

9,9
27,9
2,5
19,7
22,8
3,7
0,6
15,4
2,2
15,6
27,7
0,5
11,8
8,1
4,5

nonmetals share electrons	
<b>√</b> 1	
	11
	9,92
ime (seconds)	

# Unit 4 Ch

### 9 Quiz

Correct answers

Players correct (

Question duration

### **Answer Sun**

Answer options

Is answer correct

Number of answ

Average time tal

## **Answer Deta**

Players

Chris

Cole

G

Hudson

**Hudson Krawfor** 

Karlee

Keiona

Kyle

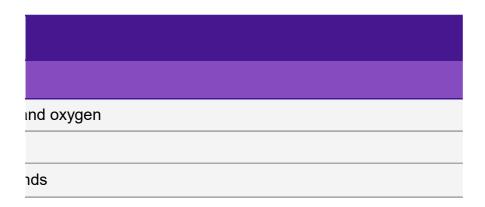
Kyle Daniels

**MADDIE** 

Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

emical Property Trend	
Which of the following is likely to fo	rm a covalent bond?
;	carbon a
(%)	52,00%
on	30 secor
nmary	
pt?	
ers received	
ken to answer (seconds)	
ails	Answer
	X
	<b>√</b> □
	х
	х
.d	X
	<b>√</b> □
	Х
	<b>√</b> □
	Х
	<b>√</b> □

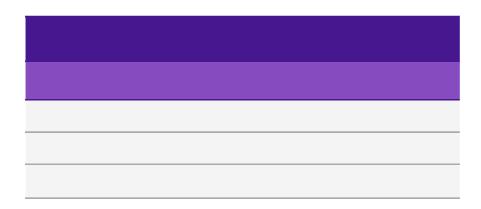
Х
<b>√</b> □
Х
<b>√</b> □
Х
<b>√</b> □
Х
Х
Х



carbon and oxygen	•
<b>√</b> □	
13	
10,96	

	Score (p
sodium and chlorine	0
carbon and oxygen	588
	0
	0
neon and argon	0
carbon and oxygen	797
sodium and chlorine	0
carbon and oxygen	668
neon and argon	0
carbon and oxygen	1492

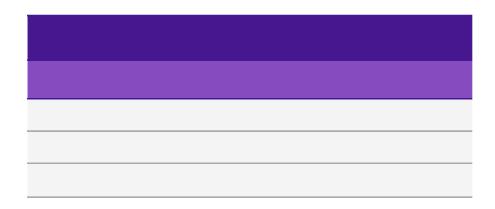
	0
carbon and oxygen	825
neon and argon	0
carbon and oxygen	897
neon and argon	0
carbon and oxygen	1472
carbon and oxygen	1500
carbon and oxygen	822
carbon and oxygen	1433
carbon and oxygen	737
carbon and oxygen	610
carbon and oxygen	1488
sodium and chlorine	0
sodium and chlorine	0
neon and argon	0



neon and argon	•
X	
5	
16,34	

oints)	Current
	3655
	3765
	767
	0
	7990
	4726
	3601
	3813
	1978
	11745

2540
5736
2851
6015
3699
11277
11643
2418
11834
4677
4629
11905
7622
5604
6424



sodium and chlorine	-
X	
4	
14,13	

Total Score (points)	Answer ti
	27,6
	24,7
	30
	30
	11
	12,2
	14,2
	19,9
	21,5
	0,5

30
10,5
6,4
12,2
26,2
1,7
0,2
16,7
4
15,8
23,4
0,7
3,2
11,5
16,6

copper and iron	
X	
~	
	0
	0,00
ime (seconds)	

# Unit 4 Ch

## 10 Quiz

Correct answers

Players correct (

Question duration

### **Answer Sun**

Answer options

Is answer correct

Number of answ

Average time tal

## **Answer Deta**

Players

Chris

Cole

G

Hudson

**Hudson Krawfor** 

Karlee

Keiona

Kyle

Kyle Daniels

**MADDIE** 

Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

emical Property Trend	
Which combination will result in the fastest chemical reac	tion?
3	large me
(%)	28,00%
on	30 secor
nmary	
	<b>A</b>
zt?	
/ers received	
ken to answer (seconds)	
ails	
	Answer
	X
	Х
	Х
	Х
d	<b>√</b> □
	Х
	X
	X
	X
	<b>√</b> □

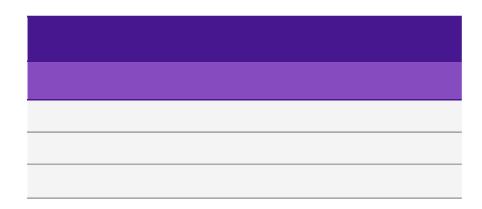
Х
Х
Х
Х
Х
<b>√</b> □
<b>√</b> □
Х
<b>√</b> □
Х
Х
<b>√</b> □
<b>√</b> □
Х
Х

tal with small nonmetal		
ital With Sinal Hollinetal		
nds		

small metal with small nonmetal	<b>*</b>
X	
2	
15,40	

	Score (p
small metal with large nonmetal	0
small metal with large nonmetal	0
	0
	0
large metal with small nonmetal	800
small metal with large nonmetal	0
	0
small metal with large nonmetal	0
small metal with large nonmetal	0
large metal with small nonmetal	1483

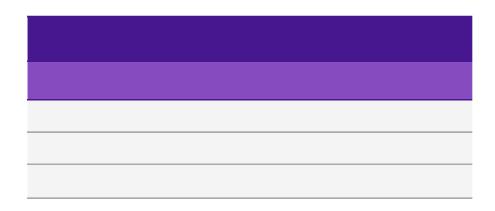
	0
large metal with large nonmetal	0
large metal with large nonmetal	0
small metal with large nonmetal	0
small metal with small nonmetal	0
large metal with small nonmetal	1463
large metal with small nonmetal	1500
small metal with large nonmetal	0
large metal with small nonmetal	1397
small metal with large nonmetal	0
large metal with large nonmetal	0
large metal with small nonmetal	1487
large metal with small nonmetal	837
small metal with large nonmetal	0
small metal with small nonmetal	0



small metal with large nonmetal	•
X	
9	
17,11	

oints)	Current
	3655
	3765
	767
	0
	8790
	4726
	3601
	3813
	1978
	13228

2540
5736
2851
6015
3699
12740
13143
2418
13231
4677
4629
13392
8459
5604
6424



large metal with large nonmetal	_
X	
3	
25,63	

Total Score (points)	Answer ti
	15,4
	21,2
	30
	30
	12
	22,7
	30
	20,7
	14,6
	1

30
27,9
20,6
14,1
24,2
2,2
0,3
10,9
6,2
18,8
28,4
0,8
9,8
15,6
6,6

large metal with small nonmetal	
<b>√</b> □	
	7
	4,61
ime (seconds)	

# Unit 4 Ch

### 11 Quiz

Correct answers

Players correct (

Question duration

### **Answer Sun**

Answer options

Is answer correct

Number of answ

Average time tal

## **Answer Deta**

Players

Chris

Cole

G

Hudson

**Hudson Krawfor** 

Karlee

Keiona

Kyle

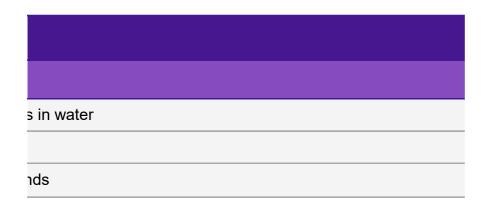
Kyle Daniels

**MADDIE** 

Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

emical Property Trend	
All of the following are examples of a chemical change EXCEPT	
;	dissolves
(%)	60,00%
on	30 secon
nmary	
	<b>▲</b>
pt?	
ers received	
ken to answer (seconds)	
ails	
	Answer
	<b>√</b> □
	√□
	X
	X
'd	<b>√</b> □
	X
	X
	X
	Х
	√l

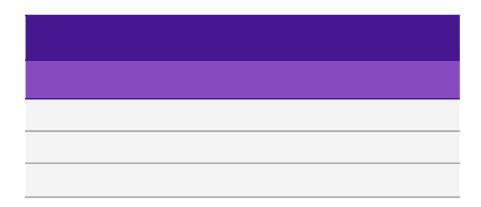
Х
<b>√</b> □
<b>√</b> □
X
<b>√</b> □
<b>√</b> □
Х
<b>√</b> □
<b>√</b> □
Х
<b>√</b> □





	Score (p
dissolves in water	525
dissolves in water	635
	0
	0
dissolves in water	1023
emits light	0
change in color	0
change in color	0
change in color	0
dissolves in water	1478

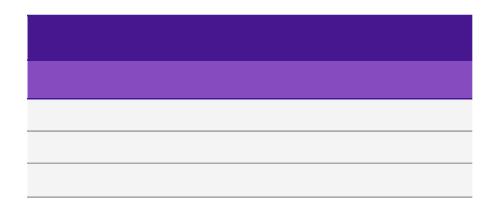
	0
dissolves in water	557
dissolves in water	942
change in color	0
dissolves in water	530
dissolves in water	1345
emits light	0
dissolves in water	662
dissolves in water	1487
change in color	0
dissolves in water	597
dissolves in water	1490
dissolves in water	922
dissolves in water	872
dissolves in water	885





oints)	Current
	4180
	4400
	767
	0
	9813
	4726
	3601
	3813
	1978
	14706

2540
6293
3793
6015
4229
14085
13143
3080
14718
4677
5226
14882
9381
6476
7309





Total Score (points)	Answer ti
	28,5
	21,9
	30
	30
	4,6
	15,2
	18,5
	29,6
	16
	1,3

30
26,6
3,5
26,6
28,2
9,3
0,3
20,3
0,8
24
24,2
0,6
10,7
7,7
6,9

dissolves in water	
<b>√</b> □	
1	5
13,0	1
me (seconds)	
	_
	_

# Unit 4 Ch

### 12 Quiz

Correct answers

Players correct (

Question duratic

### **Answer Sun**

Answer options

Is answer correct

Number of answ

Average time tal

## **Answer Deta**

Players

Chris

Cole

G

Hudson

**Hudson Krawfor** 

Karlee

Keiona

Kyle

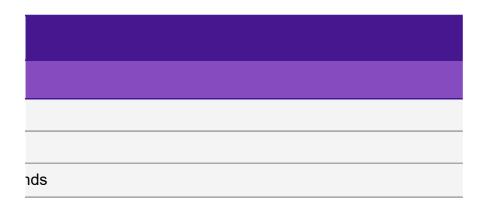
Kyle Daniels

MADDIE

Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

emical Property Trend	
Which two elements will have similar chemic	cal properties?
;	F and Cl
(%)	40,00%
n	20 secor
nmary	
	<u> </u>
pt?	
vers received	
ken to answer (seconds)	
ails	
	Answer
	<b>√</b> □
	X
	Х
	Х
d	<b>√</b> □
	<b>√</b> □
	Х
	X
	Х
	<b>√</b> □

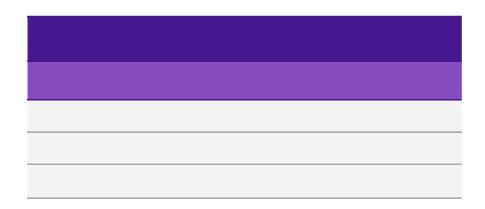
Х
Х
Х
Х
Х
<b>√</b> □
<b>√</b> □
Х
<b>√</b> □
Х
Х
<b>√</b> □
Х
<b>√</b> □
<b>√</b> □



Na  and Mg	<b>*</b>
X	
4	
15,20	

	Score (p
F and Cl	618
	0
	0
	0
F and Cl	1080
F and Cl	595
	0
	0
Na  and Mg	0
F and Cl	1460

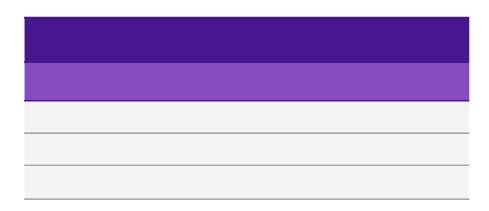
	0
Na  and Mg	0
C and Cl	0
C and Cl	0
H and He	0
F and CI	1500
F and Cl	1000
H and He	0
F and CI	1483
Na  and Mg	0
H and He	0
F and CI	1483
Na  and Mg	0
F and CI	1018
F and CI	990



H and He	•
X	
	3
17	7,93

oints)	Current
	4798
	4400
	767
	0
	10893
	5321
	3601
	3813
	1978
	16166

2540
6293
3793
6015
4229
15585
14143
3080
16201
4677
5226
16365
9381
7494
8299



F and CI			•
	<b>√</b> □		
		10	
		5,17	

Total Score (points)	Answer ti
	19,3
	20
	20
	20
	4,8
	16,2
	20
	20
	14,9
	1,6

20
18,5
7,3
19,4
16,9
0,4
0,3
17,9
0,7
19,6
19
0,7
7,8
3,3
4,4

C and Cl	
X	
	2
	13,35
me (seconds)	

	_
	_
	 _
	_
	_
	_
	_
	_
	_
	_
	_
	_

#### RawReportData Data

Question Number	
1	Quiz

1	Quiz
1	Quiz
2	Quiz

2	Quiz
2	Quiz

2 Quiz
2 Quiz
2 Quiz
3 Quiz

3	3	Qı	٦ij	Z
3	3	Qı	٦ij	z
3	3	Qı	ιi	z
3	3	Qı	٦ij	Z
3	3	Qı	٦ij	z
3	3	Qı	٦ij	z
3	3	Qı	Ji.	z
3	3	Qı	Ji.	z
3	3	Qı	٦ij	z
3	3	Qı	Ji	z
3	3	Qı	٦ij	z
3	3	Qı	Ji	z
4	1	Qı	٦ij	z
4	1	Qı	Ji	z
2	1	Qı	٦ij	z
2	1	Qı	٦ij	z

4	1 Quiz
4	1 Quiz

4 Quiz
4 Quiz
4 Quiz
4 Quiz
4 Quiz
5 Quiz

5	Quiz
5	Quiz
6	Quiz
6	Quiz

6	6 Quiz
6	6 Quiz
(	6 Quiz

6	Quiz
6	Quiz
7	Quiz

7	Quiz
7	Quiz

8 Quiz
8 Quiz

8	3 Qu	iz
8	3 Qu	iz
8	3 Qu	İΖ
8	3 Qu	iz
8	3 Qu	İΖ
8	3 Qu	iz
g	9 Qu	iz
g	9 Qu	iz
g	9 Qu	iz
g	9 Qu	iz
g	) Qu	iz
g	) Qu	iz
S	) Qu	iz

9 Quiz
9 Quiz

9	Quiz
9	Quiz
10	Quiz
10	Quiz
10	Quiz
10	Quiz
10	Quiz
10	Quiz
10	Quiz
10	Quiz
10	Quiz
10	Quiz
10	Quiz
10	Quiz
10	Quiz
10	Quiz

10 Quiz
10 Quiz
11 Quiz
11 Quiz
11 Quiz
11 Quiz
11 Quiz

11	Quiz
11	Quiz

1	1	Quiz
1	1	Quiz
1	1	Quiz
1	1	Quiz
1	2	Quiz
1	2	Quiz
1	2	Quiz
1	2	Quiz
1	2	Quiz
1	2	Quiz
1	2	Quiz
1	2	Quiz
1	2	Quiz
1	2	Quiz
1	2	Quiz
1	2	Quiz

12 Quiz
12 Quiz

Question
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?

Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which of the following is a chemical property?
Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?

Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	
Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?  Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
	Which element is the most reactive nonmetal?
Which element is the most reactive nonmetal?	Which element is the most reactive nonmetal?
	Which element is the most reactive nonmetal?

| Which element is the most reactive nonmetal?  Which element is the most reactive metal?  |
|--|--|
| Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?   | Which element is the most reactive nonmetal? |
| Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  | Which element is the most reactive nonmetal? |
| Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?   | Which element is the most reactive nonmetal? |
| Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?   | Which element is the most reactive metal?    |
| Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?   | Which element is the most reactive metal?    |
| Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?   | Which element is the most reactive metal?    |
| Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  | Which element is the most reactive metal?    |
| Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?   | Which element is the most reactive metal?    |
| Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  | Which element is the most reactive metal?    |
| Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?   | Which element is the most reactive metal?    |
| Which element is the most reactive metal?  Which element is the most reactive metal?  Which element is the most reactive metal?  | Which element is the most reactive metal?    |
| Which element is the most reactive metal? Which element is the most reactive metal?  | Which element is the most reactive metal?    |
| Which element is the most reactive metal?  | Which element is the most reactive metal?    |
|  | Which element is the most reactive metal?    |
| Which element is the most reactive metal?  | Which element is the most reactive metal?    |
|  | Which element is the most reactive metal?    |

Which element is the most reactive metal?  Which element is the most reactive metal?
Which element is the most reactive metal?
Which element is the most reactive metal?
Which element is the most reactive metal?
Which element is the most reactive metal?
Which element is the most reactive metal?
Which element is the most reactive metal?
Which element is the most reactive metal?
Which element is the most reactive metal?
Which element is the most reactive metal?
Which element is the most reactive metal?
Which element is the most reactive metal?
What determines an elements chemical properties?

What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?	
What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?	What determines an elements chemical properties?
What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?	What determines an elements chemical properties?
What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?	What determines an elements chemical properties?
What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?	What determines an elements chemical properties?
What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?	What determines an elements chemical properties?
What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?	What determines an elements chemical properties?
What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?	What determines an elements chemical properties?
What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?	What determines an elements chemical properties?
What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?	What determines an elements chemical properties?
What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?	What determines an elements chemical properties?
What determines an elements chemical properties?  What determines an elements chemical properties?  What determines an elements chemical properties?	What determines an elements chemical properties?
What determines an elements chemical properties? What determines an elements chemical properties?	What determines an elements chemical properties?
What determines an elements chemical properties?	What determines an elements chemical properties?
	What determines an elements chemical properties?
What determines an elements chemical properties?	What determines an elements chemical properties?
	What determines an elements chemical properties?

What determines an elements chemical properties?
What determines an elements chemical properties?
Ionic bonding occurs when
Ionic bonding occurs when
Ionic bonding occurs when
Ionic bonding occurs when
Ionic bonding occurs when
Ionic bonding occurs when
Ionic bonding occurs when
Ionic bonding occurs when
Ionic bonding occurs when
Ionic bonding occurs when
lonic bonding occurs when

Ionic bonding occurs when
lonic bonding occurs when
Ionic bonding occurs when
lonic bonding occurs when
Ionic bonding occurs when
lonic bonding occurs when
Ionic bonding occurs when
lonic bonding occurs when
Ionic bonding occurs when
lonic bonding occurs when
Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?

Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	
Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?  Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
	Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?	Which of the following atoms will form an ionic bond?
	Which of the following atoms will form an ionic bond?

Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?
Which of the following atoms will form an ionic bond?
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy

When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy
When atoms gain or lose electrons to become ions, they satisfy

Covalent Bonding occurs when
Covalent Bonding occurs when

Covalent Bonding occurs when
Covalent Bonding occurs when
Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?

Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	
Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
	Which of the following is likely to form a covalent bond?
Which of the following is likely to form a covalent bond?	Which of the following is likely to form a covalent bond?
	Which of the following is likely to form a covalent bond?

Which of the following is likely to form a covalent bond?  Which of the following is likely to form a covalent bond?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	
Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	Which of the following is likely to form a covalent bond?
Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	Which of the following is likely to form a covalent bond?
Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?  Which combination will result in the fastest chemical reaction?	Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?	Which combination will result in the fastest chemical reaction?
	Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?	Which combination will result in the fastest chemical reaction?
	Which combination will result in the fastest chemical reaction?

Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?
Which combination will result in the fastest chemical reaction?
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT

All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT

All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
All of the following are examples of a chemical change EXCEPT
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?

Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?
Which two elements will have similar chemical properties?

Answer 1	Answer 2
evaporation	flammability

flammability
flammability
phosphorus
phosphorus
phosphorus
phosphorus
phosphorus
phosphorus

helium	phosphorus
helium	phosphorus

helium	phosphorus
helium	phosphorus
helium	phosphorus
francium	sodium
francium	sodium
francium	sodium
francium	sodium
francium	sodium
francium	sodium
francium	sodium
francium	sodium
francium	sodium
francium	sodium
francium	sodium
francium	sodium
francium	sodium

francium francium sodium francium francium francium sodium francium sodium sodium sodium francium sodium number of protons number of valence electrons number of valence electrons		
francium  number of protons  number of valence electrons  number of valence electrons  number of valence electrons	francium	sodium
francium  francium  sodium  francium  francium  francium  francium  francium  sodium  sodium  francium  francium  sodium  sodium  francium  sodium  francium  francium  francium  sodium  sodium  number of protons  number of valence electrons  number of valence electrons  number of valence electrons	francium	sodium
francium  francium  francium  francium  francium  francium  francium  francium  francium  francium  sodium  francium  francium  sodium  francium  francium  sodium  francium  francium  sodium  number of protons  number of valence electrons  number of valence electrons  number of valence electrons  number of valence electrons	francium	sodium
francium  francium  sodium  francium  francium  francium  sodium  francium  sodium  francium  sodium  francium  sodium  sodium  francium  number of protons  number of valence electrons  number of valence electrons  number of valence electrons  number of valence electrons	francium	sodium
francium  francium  sodium  francium  sodium  francium  sodium  francium  sodium  sodium  francium  sodium  number of protons  number of protons  number of valence electrons  number of protons  number of valence electrons  number of valence electrons  number of valence electrons	francium	sodium
francium  francium  sodium  francium  francium  francium  sodium  francium  sodium  sodium  number of protons  number of protons  number of valence electrons  number of protons  number of valence electrons  number of valence electrons	francium	sodium
francium sodium  francium sodium  francium sodium  francium sodium  number of protons number of valence electrons  number of protons number of valence electrons  number of protons number of valence electrons	francium	sodium
francium sodium  francium sodium  francium sodium  number of protons number of valence electrons  number of protons number of valence electrons  number of protons number of valence electrons	francium	sodium
francium sodium  francium sodium  number of protons number of valence electrons  number of protons number of valence electrons  number of protons number of valence electrons	francium	sodium
francium sodium  number of protons number of valence electrons  number of protons number of valence electrons  number of protons number of valence electrons	francium	sodium
number of protons  number of protons  number of valence electrons  number of protons  number of valence electrons  number of valence electrons	francium	sodium
number of protons  number of valence electrons  number of protons  number of valence electrons	francium	sodium
number of protons number of valence electrons	number of protons	number of valence electrons
<u>'</u>	number of protons	number of valence electrons
number of protons number of valence electrons	number of protons	number of valence electrons
	number of protons	number of valence electrons

number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons
number of protons	number of valence electrons

number of valence electrons
number of valence electrons
metals share electrons with other metals
metals share electrons with other metals
metals share electrons with other metals
metals share electrons with other metals
metals share electrons with other metals
metals share electrons with other metals
metals share electrons with other metals
metals share electrons with other metals
metals share electrons with other metals
metals share electrons with other metals
metals share electrons with other metals

metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
metals transfer of electron to nonmetals	metals share electrons with other metals
calcium and nickel	oxygen and nitrogen
calcium and nickel	oxygen and nitrogen

calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen		
calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen	calcium and nickel	oxygen and nitrogen
calcium and nickel calcium and nickel	calcium and nickel	oxygen and nitrogen
calcium and nickel calcium and nickel	calcium and nickel	oxygen and nitrogen
calcium and nickel  calcium and nickel	calcium and nickel	oxygen and nitrogen
calcium and nickel  calcium and nickel	calcium and nickel	oxygen and nitrogen
calcium and nickel  calcium and nickel	calcium and nickel	oxygen and nitrogen
calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel	calcium and nickel	oxygen and nitrogen
calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel	calcium and nickel	oxygen and nitrogen
calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel	calcium and nickel	oxygen and nitrogen
calcium and nickel  calcium and nickel  oxygen and nitrogen  calcium and nickel  oxygen and nitrogen  oxygen and nitrogen  oxygen and nitrogen  oxygen and nitrogen	calcium and nickel	oxygen and nitrogen
calcium and nickel  calcium and nickel  oxygen and nitrogen  oxygen and nitrogen  calcium and nickel  oxygen and nitrogen	calcium and nickel	oxygen and nitrogen
calcium and nickel  calcium and nickel  oxygen and nitrogen  oxygen and nitrogen	calcium and nickel	oxygen and nitrogen
calcium and nickel oxygen and nitrogen	calcium and nickel	oxygen and nitrogen
,,,	calcium and nickel	oxygen and nitrogen
calcium and nickel oxygen and nitrogen	calcium and nickel	oxygen and nitrogen
	calcium and nickel	oxygen and nitrogen

calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen  Calcium and nickel oxygen and nitrogen  Hund's Rule Coulomb's Law		
calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen calcium and nickel oxygen and nitrogen Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law	calcium and nickel	oxygen and nitrogen
calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nickel  calcium and nitrogen  Coulomb's Law  Coulomb's Law  Coulomb's Law  Coulomb's Law  Coulomb's Law  Coulomb's Law  Hund's Rule  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Hund's Rule  Coulomb's Law	calcium and nickel	oxygen and nitrogen
calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  calcium and nickel oxygen and nitrogen  Hund's Rule Coulomb's Law	calcium and nickel	oxygen and nitrogen
calcium and nickel  calcium and nickel  calcium and nickel  coulomb's Law  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Coulomb's Law  Coulomb's Law  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Coulomb's Law  Coulomb's Law  Coulomb's Law	calcium and nickel	oxygen and nitrogen
calcium and nickel  Oxygen and nitrogen  Hund's Rule  Coulomb's Law  Hund's Rule  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Hund's Rule  Coulomb's Law  Hund's Rule  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Coulomb's Law  Coulomb's Law	calcium and nickel	oxygen and nitrogen
Hund's Rule  Coulomb's Law  Hund's Rule  Coulomb's Law  Hund's Rule  Coulomb's Law	calcium and nickel	oxygen and nitrogen
Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Coulomb's Law Hund's Rule Coulomb's Law Coulomb's Law Coulomb's Law Coulomb's Law Coulomb's Law Coulomb's Law Coulomb's Law	calcium and nickel	oxygen and nitrogen
Hund's Rule  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Coulomb's Law  Coulomb's Law	Hund's Rule	Coulomb's Law
Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Coulomb's Law Coulomb's Law Coulomb's Law	Hund's Rule	Coulomb's Law
Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Hund's Rule Coulomb's Law Coulomb's Law Coulomb's Law	Hund's Rule	Coulomb's Law
Hund's Rule  Coulomb's Law  Hund's Rule  Coulomb's Law  Coulomb's Law  Coulomb's Law	Hund's Rule	Coulomb's Law
Hund's Rule  Coulomb's Law  Hund's Rule  Coulomb's Law	Hund's Rule	Coulomb's Law
Hund's Rule Coulomb's Law	Hund's Rule	Coulomb's Law
	Hund's Rule	Coulomb's Law
Hund's Rule Coulomb's Law	Hund's Rule	Coulomb's Law
	Hund's Rule	Coulomb's Law

Hund's Rule	Coulomb's Law
Hund's Rule	Coulomb's Law

metals share electrons
metals share electrons

nonmetals share protons	metals share electrons
nonmetals share protons	metals share electrons
nonmetals share protons	metals share electrons
nonmetals share protons	metals share electrons
nonmetals share protons	metals share electrons
nonmetals share protons	metals share electrons
nonmetals share protons	metals share electrons
nonmetals share protons	metals share electrons
nonmetals share protons	metals share electrons
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon

carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
carbon and oxygen	neon and argon

carbon and oxygen	neon and argon
carbon and oxygen	neon and argon
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal

small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
small metal with small nonmetal	small metal with large nonmetal
increase in heat	change in color
increase in heat	change in color
increase in heat	change in color
increase in heat	change in color
increase in heat	change in color

change in color
change in color

increase in heat	change in color
increase in heat	change in color
increase in heat	change in color
increase in heat	change in color
Na  and Mg	H and He
Na  and Mg	H and He
Na  and Mg	H and He
Na  and Mg	H and He
Na  and Mg	H and He
Na  and Mg	H and He
Na  and Mg	H and He
Na  and Mg	H and He
Na  and Mg	H and He
Na  and Mg	H and He
Na  and Mg	H and He
Na  and Mg	H and He

Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He		
Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He	Na  and Mg	H and He
Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He	Na  and Mg	H and He
Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He	Na  and Mg	H and He
Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He	Na  and Mg	H and He
Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He	Na  and Mg	H and He
Na  and Mg  H and He  Na  and Mg  H and He  Na  and Mg  H and He	Na  and Mg	H and He
Na  and Mg  H and He  Na  and Mg  H and He	Na  and Mg	H and He
Na  and Mg  H and He	Na  and Mg	H and He
	Na  and Mg	H and He
Na  and Mg	Na  and Mg	H and He
	Na  and Mg	H and He
Na  and Mg	Na  and Mg	H and He
Na  and Mg	Na  and Mg	H and He

Answer 3	Answer 4
melting	solubility

solubility
solubility
sulfur
sulfur
sulfur
sulfur
sulfur
sulfur

sulfur
sulfur

fluorine	sulfur
fluorine	sulfur
fluorine	sulfur
copper	aluminum
copper	aluminum
copper	aluminum
copper	aluminum
copper	aluminum
copper	aluminum
copper	aluminum
copper	aluminum
copper	aluminum
copper	aluminum
copper	aluminum
copper	aluminum
copper	aluminum

copper	aluminum
copper	aluminum
number of orbitals	number of neutrons
number of orbitals	number of neutrons
number of orbitals	number of neutrons
number of orbitals	number of neutrons

number of orbitals number of neutrons		
number of orbitals  number of orbitals	number of orbitals	number of neutrons
number of orbitals number of orbitals	number of orbitals	number of neutrons
number of orbitals  number of orbitals  number of neutrons	number of orbitals	number of neutrons
number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons	number of orbitals	number of neutrons
number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of neutrons  number of orbitals  number of neutrons	number of orbitals	number of neutrons
number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of neutrons	number of orbitals	number of neutrons
number of orbitals  number of neutrons  number of orbitals  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of neutrons  number of neutrons	number of orbitals	number of neutrons
number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of neutrons	number of orbitals	number of neutrons
number of orbitals  number of neutrons  number of orbitals  number of orbitals  number of neutrons  number of orbitals  number of orbitals  number of neutrons  number of neutrons	number of orbitals	number of neutrons
number of orbitals  number of neutrons  number of neutrons  number of orbitals  number of neutrons  number of neutrons  number of neutrons  number of neutrons	number of orbitals	number of neutrons
number of orbitals  number of neutrons  number of neutrons  number of orbitals  number of neutrons	number of orbitals	number of neutrons
number of orbitals  number of neutrons  number of neutrons	number of orbitals	number of neutrons
number of orbitals number of neutrons	number of orbitals	number of neutrons
	number of orbitals	number of neutrons
number of orbitals number of neutrons	number of orbitals	number of neutrons
	number of orbitals	number of neutrons

number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of neutrons  number of orbitals  number of neutrons  number of neutrons  number of neutrons  number of neutrons  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals		
number of orbitals  number of neutrons  number of orbitals  number of neutrons  number of neutrons  number of neutrons  metals share electrons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals	number of orbitals	number of neutrons
number of orbitals  number of neutrons  number of neutrons  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals	number of orbitals	number of neutrons
number of orbitals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals	number of orbitals	number of neutrons
metals share electrons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals	number of orbitals	number of neutrons
metals share electrons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals	number of orbitals	number of neutrons
metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals	metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals	metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals	metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals	metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals	metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals  metals share electrons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals	metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals  metals transfer protons with nonmetals  metals share electrons with nonmetals  metals transfer protons with nonmetals	metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals metals transfer protons with nonmetals	metals share electrons with nonmetals	metals transfer protons with nonmetals
	metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals metals transfer protons with nonmetals	metals share electrons with nonmetals	metals transfer protons with nonmetals
· ·	metals share electrons with nonmetals	metals transfer protons with nonmetals

metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
metals share electrons with nonmetals	metals transfer protons with nonmetals
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury

lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury
lithium and fluorine	gold and mercury

gold and mercury
gold and mercury
Uncertainty Principle
Uncertainty Principle
Uncertainty Principle
Uncertainty Principle
Uncertainty Principle
Uncertainty Principle
Uncertainty Principle
Uncertainty Principle
Uncertainty Principle

Octet Rule	Uncertainty Principle
Octet Rule	Uncertainty Principle

metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons
metals share protons	nonmetals share electrons

l l
nonmetals share electrons
copper and iron
copper and iron
copper and iron
copper and iron
copper and iron
copper and iron
copper and iron

copper and iron
copper and iron

sodium and chlorine	copper and iron
sodium and chlorine	copper and iron
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal

large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
large metal with large nonmetal	large metal with small nonmetal
emits light	dissolves in water
emits light	dissolves in water
emits light	dissolves in water
emits light	dissolves in water
emits light	dissolves in water

emits light	dissolves in water
emits light	dissolves in water

emits light	dissolves in water
emits light	dissolves in water
emits light	dissolves in water
emits light	dissolves in water
F and CI	C and Cl
F and Cl	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and CI
F and CI	C and Cl
F and CI	C and Cl

F and Cl	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl
F and CI	C and Cl

Correct Answers	Time Allotted to Answer (seconds)
flammability	30

flammability	30
flammability	30
fluorine	30
fluorine	30
fluorine	30
fluorine	30
fluorine	30
fluorine	30

fluorine	30
fluorine	30

fluorine	30
fluorine	30
fluorine	30
francium	30
francium	30
francium	30
francium	30
francium	30
francium	30
francium	30
francium	30
francium	30
francium	30
francium	30
francium	30
francium	30

francium	30
francium	30
number of valence electrons	30
number of valence electrons	30
number of valence electrons	30
number of valence electrons	30

number of valence electrons	30
number of valence electrons	30

number of valence electrons	30
number of valence electrons	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30

metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
metals transfer of electron to nonmetals	30
lithium and fluorine	30
lithium and fluorine	30

lithium and fluorine	30
lithium and fluorine	30

lithium and fluorine	30
lithium and fluorine	30
Octet Rule	30
Octet Rule	30
Octet Rule	30
Octet Rule	30
Octet Rule	30
Octet Rule	30
Octet Rule	30
Octet Rule	30
Octet Rule	30

Octet Rule	30
Octet Rule	30

nonmetals share electrons	30
nonmetals share electrons	30

nonmetals share electrons	30
nonmetals share electrons	30
carbon and oxygen	30
carbon and oxygen	30
carbon and oxygen	30
carbon and oxygen	30
carbon and oxygen	30
carbon and oxygen	30
carbon and oxygen	30

30
30
30
30
30
30
30
30
30
30
30
30
30
30
30
30

carbon and oxygen	30
carbon and oxygen	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30

large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
large metal with small nonmetal	30
dissolves in water	30
dissolves in water	30
dissolves in water	30
dissolves in water	30
dissolves in water	30

dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30		
dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30         dissolves in water       30	dissolves in water	30
dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30	dissolves in water	30
dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30           dissolves in water         30	dissolves in water	30
dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30	dissolves in water	30
dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30	dissolves in water	30
dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30	dissolves in water	30
dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30	dissolves in water	30
dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30	dissolves in water	30
dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30	dissolves in water	30
dissolves in water 30 dissolves in water 30 dissolves in water 30 dissolves in water 30	dissolves in water	30
dissolves in water 30 dissolves in water 30 dissolves in water 30	dissolves in water	30
dissolves in water 30 dissolves in water 30	dissolves in water	30
dissolves in water 30	dissolves in water	30
	dissolves in water	30
dissolves in water 30	dissolves in water	30
	dissolves in water	30

dissolves in water	30
dissolves in water	30
dissolves in water	30
dissolves in water	30
F and Cl	20

F and Cl	20
F and Cl	20

Players
Chris
Cole
G
Hudson
Hudson Krawford
Karlee
Keiona
Kyle
Kyle Daniels
MADDIE
Max
Mikayla :-)
Mithil
Noah
Parker

Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan
Chris
Cole
G
Hudson
Hudson Krawford
Karlee

Keiona
Kyle
Kyle Daniels
MADDIE
Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri

caroline
netta
reagan
Chris
Cole
G
Hudson
Hudson Krawford
Karlee
Keiona
Kyle
Kyle Daniels
MADDIE
Max
Mikayla :-)
Mithil

Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan
Chris
Cole
G
Hudson

Hudson Krawford
Karlee
Keiona
Kyle
Kyle Daniels
MADDIE
Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj

braxton
bri
caroline
netta
reagan
Chris
Cole
G
Hudson
Hudson Krawford
Karlee
Keiona
Kyle
Kyle Daniels
MADDIE
Max

Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan
Chris
Cole

G
Hudson
Hudson Krawford
Karlee
Keiona
Kyle
Kyle Daniels
MADDIE
Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great

adelle
aj
braxton
bri
caroline
netta
reagan
Chris
Cole
G
Hudson
Hudson Krawford
Karlee
Keiona
Kyle
Kyle Daniels

MADDIE
Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

Chris
Cole
G
Hudson
Hudson Krawford
Karlee
Keiona
Kyle
Kyle Daniels
MADDIE
Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser

Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan
Chris
Cole
G
Hudson
Hudson Krawford
Karlee
Keiona

Kyle
Kyle Daniels
MADDIE
Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline

netta
reagan
Chris
Cole
G
Hudson
Hudson Krawford
Karlee
Keiona
Kyle
Kyle Daniels
MADDIE
Max
Mikayla :-)
Mithil
Noah

Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan
Chris
Cole
G
Hudson
Hudson Krawford

Karlee
Keiona
Kyle
Kyle Daniels
MADDIE
Max
Mikayla :-)
Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton

bri
caroline
netta
reagan
Chris
Cole
G
Hudson
Hudson Krawford
Karlee
Keiona
Kyle
Kyle Daniels
MADDIE
Max
Mikayla :-)

Mithil
Noah
Parker
Sam Sweetser
Shepard
Tyler the Great
adelle
aj
braxton
bri
caroline
netta
reagan

Answer	Correct / Incorrect	Correct
flammability	Correct	1
flammability	Correct	1
	Incorrect	0
	Incorrect	0
flammability	Correct	1

Correct	1
Correct	1
Incorrect	0
Correct	1
Correct	1
Incorrect	0
Correct	1
Correct	1
	Correct Correct Correct Correct Correct Correct Correct Correct Correct Correct Incorrect Correct Correct Correct Correct

fluorine	Correct	1
phosphorus	Incorrect	0
phosphorus	Incorrect	0
fluorine	Correct	1
fluorine	Correct	1
sulfur	Incorrect	0
fluorine	Correct	1
sulfur	Incorrect	0
phosphorus	Incorrect	0
fluorine	Correct	1
fluorine	Correct	1
phosphorus	Incorrect	0
fluorine	Correct	1
sulfur	Incorrect	0
fluorine	Correct	1
fluorine	Correct	1

Correct	1
Correct	1
Incorrect	0
Incorrect	0
Correct	1
Incorrect	0
Correct	1
Incorrect	0
Correct	1
Incorrect	0
	Correct Correct Correct Incorrect Incorrect Correct

francium	Correct	1
francium	Correct	1
francium	Correct	1
francium	Correct	1
sodium	Incorrect	0
francium	Correct	1
francium	Correct	1
francium	Correct	1
francium	Correct	1
francium	Correct	1
francium	Correct	1
francium	Correct	1
number of valence electrons	Correct	1
	Incorrect	0
	Incorrect	0
	Incorrect	0

number of valence electrons	Correct	1
number of valence electrons	Correct	1
	Incorrect	0
number of valence electrons	Correct	1
number of valence electrons	Correct	1
number of valence electrons	Correct	1
number of valence electrons	Correct	1
number of valence electrons	Correct	1
number of valence electrons	Correct	1
number of valence electrons	Correct	1
number of valence electrons	Correct	1
number of valence electrons	Correct	1
number of valence electrons	Correct	1
number of orbitals	Incorrect	0
number of valence electrons	Correct	1
number of valence electrons	Correct	1

Correct	1
Correct	1
Incorrect	0
Incorrect	0
Incorrect	0
Correct	1
Incorrect	0
Correct	1
Correct	1
Incorrect	0
Correct	1
Incorrect	0
	Correct Correct Correct Correct Incorrect Incorrect Correct

metals transfer of electron to nonmetals	Correct	1
metals share electrons with other metals	Incorrect	0
metals transfer of electron to nonmetals	Correct	1
metals transfer of electron to nonmetals	Correct	1
metals transfer of electron to nonmetals	Correct	1
metals transfer of electron to nonmetals	Correct	1
metals share electrons with other metals	Incorrect	0
metals transfer of electron to nonmetals	Correct	1
metals transfer of electron to nonmetals	Correct	1
metals share electrons with nonmetals	Incorrect	0
metals transfer of electron to nonmetals	Correct	1
metals transfer of electron to nonmetals	Correct	1
metals transfer of electron to nonmetals	Correct	1
metals transfer of electron to nonmetals	Correct	1
oxygen and nitrogen	Incorrect	0
lithium and fluorine	Correct	1

calcium and nickel	Incorrect	0
	Incorrect	0
lithium and fluorine	Correct	1
lithium and fluorine	Correct	1
	Incorrect	0
gold and mercury	Incorrect	0
lithium and fluorine	Correct	1
lithium and fluorine	Correct	1
	Incorrect	0
lithium and fluorine	Correct	1
oxygen and nitrogen	Incorrect	0
lithium and fluorine	Correct	1
gold and mercury	Incorrect	0
lithium and fluorine	Correct	1
lithium and fluorine	Correct	1
gold and mercury	Incorrect	0

lithium and fluorine	Correct	1
gold and mercury	Incorrect	0
lithium and fluorine	Correct	1
lithium and fluorine	Correct	1
lithium and fluorine	Correct	1
calcium and nickel	Incorrect	0
lithium and fluorine	Correct	1
Coulomb's Law	Incorrect	0
Coulomb's Law	Incorrect	0
	Incorrect	0
	Incorrect	0
Coulomb's Law	Incorrect	0
Coulomb's Law	Incorrect	0
Hund's Rule	Incorrect	0
Coulomb's Law	Incorrect	0
Coulomb's Law	Incorrect	0

Octet Rule	Correct	1
	Incorrect	0
Octet Rule	Correct	1
Coulomb's Law	Incorrect	0
Coulomb's Law	Incorrect	0
Coulomb's Law	Incorrect	0
Octet Rule	Correct	1
Octet Rule	Correct	1
Coulomb's Law	Incorrect	0
Octet Rule	Correct	1
Coulomb's Law	Incorrect	0
Coulomb's Law	Incorrect	0
Octet Rule	Correct	1
Coulomb's Law	Incorrect	0
Hund's Rule	Incorrect	0
Coulomb's Law	Incorrect	0

nonmetals share electrons	Correct	1
metals share electrons	Incorrect	0
	Incorrect	0
	Incorrect	0
nonmetals share electrons	Correct	1
metals share electrons	Incorrect	0
metals share electrons	Incorrect	0
metals share electrons	Incorrect	0
metals share electrons	Incorrect	0
nonmetals share electrons	Correct	1
metals share electrons	Incorrect	0
metals share electrons	Incorrect	0
metals share protons	Incorrect	0
nonmetals share electrons	Correct	1
nonmetals share electrons	Correct	1
nonmetals share electrons	Correct	1

nonmetals share electrons	Correct	1
nonmetals share electrons	Correct	1
nonmetals share electrons	Correct	1
metals share electrons	Incorrect	0
metals share electrons	Incorrect	0
nonmetals share electrons	Correct	1
nonmetals share electrons	Correct	1
metals share electrons	Incorrect	0
metals share electrons	Incorrect	0
sodium and chlorine	Incorrect	0
carbon and oxygen	Correct	1
	Incorrect	0
	Incorrect	0
neon and argon	Incorrect	0
carbon and oxygen	Correct	1
sodium and chlorine	Incorrect	0

carbon and oxygen	Correct	1
neon and argon	Incorrect	0
carbon and oxygen	Correct	1
	Incorrect	0
carbon and oxygen	Correct	1
neon and argon	Incorrect	0
carbon and oxygen	Correct	1
neon and argon	Incorrect	0
carbon and oxygen	Correct	1
carbon and oxygen	Correct	1
carbon and oxygen	Correct	1
carbon and oxygen	Correct	1
carbon and oxygen	Correct	1
carbon and oxygen	Correct	1
carbon and oxygen	Correct	1
sodium and chlorine	Incorrect	0

sodium and chlorine	Incorrect	0
neon and argon	Incorrect	0
small metal with large nonmetal	Incorrect	0
small metal with large nonmetal	Incorrect	0
	Incorrect	0
	Incorrect	0
large metal with small nonmetal	Correct	1
small metal with large nonmetal	Incorrect	0
	Incorrect	0
small metal with large nonmetal	Incorrect	0
small metal with large nonmetal	Incorrect	0
large metal with small nonmetal	Correct	1
	Incorrect	0
large metal with large nonmetal	Incorrect	0
large metal with large nonmetal	Incorrect	0
small metal with large nonmetal	Incorrect	0

small metal with small nonmetal	Incorrect	0
large metal with small nonmetal	Correct	1
large metal with small nonmetal	Correct	1
small metal with large nonmetal	Incorrect	0
large metal with small nonmetal	Correct	1
small metal with large nonmetal	Incorrect	0
large metal with large nonmetal	Incorrect	0
large metal with small nonmetal	Correct	1
large metal with small nonmetal	Correct	1
small metal with large nonmetal	Incorrect	0
small metal with small nonmetal	Incorrect	0
dissolves in water	Correct	1
dissolves in water	Correct	1
	Incorrect	0
	Incorrect	0
dissolves in water	Correct	1

emits light	Incorrect	0
change in color	Incorrect	0
change in color	Incorrect	0
change in color	Incorrect	0
dissolves in water	Correct	1
	Incorrect	0
dissolves in water	Correct	1
dissolves in water	Correct	1
change in color	Incorrect	0
dissolves in water	Correct	1
dissolves in water	Correct	1
emits light	Incorrect	0
dissolves in water	Correct	1
dissolves in water	Correct	1
change in color	Incorrect	0
dissolves in water	Correct	1

dissolves in water	Correct	1
dissolves in water	Correct	1
dissolves in water	Correct	1
dissolves in water	Correct	1
F and CI	Correct	1
	Incorrect	0
	Incorrect	0
	Incorrect	0
F and CI	Correct	1
F and Cl	Correct	1
	Incorrect	0
	Incorrect	0
Na  and Mg	Incorrect	0
F and Cl	Correct	1
	Incorrect	0
Na  and Mg	Incorrect	0

Incorrect	0
Incorrect	0
Incorrect	0
Correct	1
Correct	1
Incorrect	0
Correct	1
Incorrect	0
Incorrect	0
Correct	1
Incorrect	0
Correct	1
Correct	1
	Incorrect Incorrect Correct Correct Incorrect Incorrect Incorrect Incorrect Correct Correct Correct Correct Correct

Incorrect	Score (points)	Score without Answer Streak Bonus (points)
0	848	848
0	818	818
1	0	0
1	0	0
0	947	947
0	815	815
0	868	868
0	892	892
0	665	665
0	905	905
0	813	813
0	768	768
0	930	930
0	887	887
0	807	807

0	762	762
0	748	748
0	853	853
0	1000	1000
0	907	907
0	838	838
0	1000	1000
0	893	893
0	920	920
0	858	858
1	0	0
0	847	747
0	767	767
1	0	0
0	982	882
0	815	715

887	987	0
0	0	1
0	0	1
935	1035	0
870	970	0
0	0	1
943	1043	0
0	0	1
0	0	1
937	1037	0
982	1082	0
0	0	1
988	1088	0
0	0	1
658	758	0
1000	1100	0

0	1063	963
0	1023	923
0	1063	963
0	590	590
0	957	757
1	0	0
1	0	0
0	1178	978
0	927	727
0	1053	853
0	520	520
1	0	0
0	1178	978
1	0	0
0	617	617
1	0	0

0	827	827
0	598	598
0	1155	955
0	1200	1000
1	0	0
0	1200	1000
0	935	935
0	1005	805
0	1200	1000
0	1150	950
0	1132	932
0	1117	917
0	785	685
1	0	0
1	0	0
1	0	0

965	1265	0
517	817	0
0	0	1
575	675	0
758	758	0
980	1280	0
757	757	0
757	857	0
878	878	0
887	987	0
812	912	0
980	1280	0
1000	1300	0
0	0	1
1000	1300	0
923	1023	0

0	848	548
0	1300	1000
0	1223	923
0	1247	947
0	1083	783
0	880	680
1	0	0
1	0	0
1	0	0
0	1323	923
1	0	0
0	693	693
0	1058	858
1	0	0
0	1387	987
1	0	0

0 790 590	0
1 0 0	1
0 898 698	0
0 762 562	0
0 1355 955	0
0 1400 1000	0
1 0 0	1
0 1400 1000	0
0 1075 875	0
1 0 0	1
0 1400 1000	0
0 1265 865	0
0 1282 882	0
0 1195 795	0
1 0 0	1
0 555 555	0

0	0	1
0	0	1
877	1377	0
555	555	0
0	0	1
0	0	1
555	555	0
990	1490	0
0	0	1
577	877	0
0	0	1
547	847	0
0	0	1
953	1453	0
1000	1500	0
0	0	1

0	1500	1000
1	0	0
0	570	570
0	1500	1000
0	1225	725
1	0	0
0	1108	608
1	0	0
1	0	0
1	0	0
1	0	0
1	0	0
1	0	0
1	0	0
1	0	0
1	0	0

-		
0	1488	988
1	0	0
0	1002	602
1	0	0
1	0	0
1	0	0
0	1325	825
0	1423	923
1	0	0
0	1450	950
1	0	0
1	0	0
0	1425	925
1	0	0
1	0	0
1	0	0

0	552	552
1	0	0
1	0	0
1	0	0
0	918	918
1	0	0
1	0	0
1	0	0
1	0	0
0	1490	990
1	0	0
1	0	0
1	0	0
0	672	672
0	620	620
0	1438	938

990	1490	0
743	743	0
963	1463	0
0	0	1
0	0	1
992	1492	0
803	803	0
0	0	1
0	0	1
0	0	1
588	588	0
0	0	1
0	0	1
0	0	1
797	797	0
0	0	1

0	668	668
1	0	0
0	1492	992
1	0	0
0	825	825
1	0	0
0	897	797
1	0	0
0	1472	972
0	1500	1000
0	822	722
0	1433	933
0	737	737
0	610	610
0	1488	988
1	0	0

0	0	1
0	0	1
0	0	1
0	0	1
0	0	1
0	0	1
800	800	0
0	0	1
0	0	1
0	0	1
0	0	1
983	1483	0
0	0	1
0	0	1
0	0	1
0	0	1

0	0	1
963	1463	0
1000	1500	0
0	0	1
897	1397	0
0	0	1
0	0	1
987	1487	0
837	837	0
0	0	1
0	0	1
525	525	0
635	635	0
0	0	1
0	0	1
923	1023	0

1	0	0
1	0	0
1	0	0
1	0	0
0	1478	978
1	0	0
0	557	557
0	942	942
1	0	0
0	530	530
0	1345	845
1	0	0
0	662	662
0	1487	987
1	0	0
0	597	597

0	1490	990
0	922	822
0	872	872
0	885	885
0	618	518
1	0	0
1	0	0
1	0	0
0	1080	880
0	595	595
1	0	0
1	0	0
1	0	0
0	1460	960
1	0	0
1	0	0

0	0	1
0	0	1
0	0	1
1000	1500	0
1000	1000	0
0	0	1
983	1483	0
0	0	1
0	0	1
983	1483	0
0	0	1
918	1018	0
890	990	0

Current Total Score (points)	Answer Time (%)
848	30.33%
818	36.33%
0	100.00%
0	100.00%
947	10.67%
815	37.00%
868	26.33%
892	21.67%
665	67.00%
905	19.00%
813	37.33%
768	46.33%
930	14.00%
887	22.67%
807	38.67%

762	47.67%
748	50.33%
853	29.33%
1000	1.33%
907	18.67%
838	32.33%
1000	1.00%
893	21.33%
920	16.00%
858	28.33%
848	99.67%
1665	50.67%
767	46.67%
0	100.00%
1929	23.67%
1630	57.00%

1855	22.67%
892	38.33%
665	85.00%
1940	13.00%
1783	26.00%
768	97.67%
1973	11.33%
887	85.33%
807	11.33%
1799	12.67%
1830	3.67%
853	17.67%
2088	2.33%
907	16.00%
1596	68.33%
2100	0.67%

1956	7.33%
1943	15.33%
1921	7.33%
1438	82.00%
2622	48.67%
767	100.00%
0	100.00%
3107	4.33%
2557	54.67%
2908	29.33%
1412	96.00%
665	75.33%
3118	4.33%
1783	33.00%
1385	76.67%
1973	12.33%

1714	34.67%
1405	80.33%
2954	9.00%
3030	1.00%
853	52.00%
3288	0.67%
1842	13.00%
2601	39.00%
3300	1.00%
3106	10.00%
3075	13.67%
3038	16.67%
2223	63.00%
2622	100.00%
767	100.00%
0	100.00%

4372	7.00%
3374	96.67%
2908	100.00%
2087	85.00%
1423	48.33%
4398	4.00%
2540	48.67%
2242	48.67%
2851	24.33%
2701	22.67%
2317	37.67%
4234	4.00%
4330	1.00%
853	66.33%
4588	1.33%
2865	15.33%

3449	90.33%
4600	0.67%
4329	15.33%
4322	10.67%
4121	43.33%
3103	64.00%
2622	90.33%
767	100.00%
0	100.00%
5695	15.33%
3374	96.33%
3601	61.33%
3145	28.33%
1423	100.00%
5785	2.67%
2540	100.00%

3032       82.00%         2851       19.67%         3599       60.33%         3079       87.67%         5589       9.00%         5730       1.33%         853       67.67%         5988       1.00%         3940       25.00%         3449       88.33%         6000       1.33%         5594       27.00%         5604       23.67%         5316       41.00%         3103       95.33%         3177       89.00%			
3599       60.33%         3079       87.67%         5589       9.00%         5730       1.33%         853       67.67%         5988       1.00%         3940       25.00%         3449       88.33%         6000       1.33%         5594       27.00%         5604       23.67%         5316       41.00%         3103       95.33%	3032	3032 82.	00%
3079       87.67%         5589       9.00%         5730       1.33%         853       67.67%         5988       1.00%         3940       25.00%         3449       88.33%         6000       1.33%         5594       27.00%         5604       23.67%         5316       41.00%         3103       95.33%	2851	2851 19.	67%
5589       9.00%         5730       1.33%         853       67.67%         5988       1.00%         3940       25.00%         3449       88.33%         6000       1.33%         5594       27.00%         5604       23.67%         5316       41.00%         3103       95.33%	3599	3599 60.	33%
5730       1.33%         853       67.67%         5988       1.00%         3940       25.00%         3449       88.33%         6000       1.33%         5594       27.00%         5604       23.67%         5316       41.00%         3103       95.33%	3079	3079 87.	67%
853     67.67%       5988     1.00%       3940     25.00%       3449     88.33%       6000     1.33%       5594     27.00%       5604     23.67%       5316     41.00%       3103     95.33%	5589	5589 9.	00%
5988       1.00%         3940       25.00%         3449       88.33%         6000       1.33%         5594       27.00%         5604       23.67%         5316       41.00%         3103       95.33%	5730	5730 1.	33%
3940 25.00% 3449 88.33% 6000 1.33% 5594 27.00% 5604 23.67% 5316 41.00% 3103 95.33%	853	853 67.	67%
3449     88.33%       6000     1.33%       5594     27.00%       5604     23.67%       5316     41.00%       3103     95.33%	5988	5988 1.	00%
6000     1.33%       5594     27.00%       5604     23.67%       5316     41.00%       3103     95.33%	3940	3940 25.	00%
5594     27.00%       5604     23.67%       5316     41.00%       3103     95.33%	3449	3449 88.	33%
5604 23.67% 5316 41.00% 3103 95.33%	6000	6000 1.	33%
5316 41.00% 3103 95.33%	5594	5594 27.	00%
3103 95.33%	5604	5604 23.	67%
	5316	5316 41.	00%
3177 89.00%	3103	3103 95.	33%
	3177	3177 89.	00%

76.67%	767
100.00%	0
24.67%	7072
89.00%	3929
100.00%	3601
76.33%	3145
89.00%	1978
2.00%	7275
100.00%	2540
84.67%	3909
7.33%	2851
90.67%	4446
32.67%	3079
9.33%	7042
1.33%	7230
36.00%	853

7488       1.33%         3940       40.33%         4019       86.00%         7500       1.00%         6819       55.00%         5604       76.67%         6424       78.33%         3103       99.00%         3177       49.67%         767       100.00%         0       100.00%         7072       15.33%         3929       76.33%         3601       35.67%         3145       19.00%         1978       69.33%		
4019       86.00%         7500       1.00%         6819       55.00%         5604       76.67%         6424       78.33%         3103       99.00%         3177       49.67%         767       100.00%         0       100.00%         7072       15.33%         3929       76.33%         3601       35.67%         3145       19.00%	1.33%	7488
7500 1.00% 6819 55.00% 5604 76.67% 6424 78.33% 3103 99.00% 3177 49.67% 767 100.00% 0 100.00% 7072 15.33% 3929 76.33% 3601 35.67% 3145 19.00%	40.33%	3940
6819       55.00%         5604       76.67%         6424       78.33%         3103       99.00%         3177       49.67%         767       100.00%         0       100.00%         7072       15.33%         3929       76.33%         3601       35.67%         3145       19.00%	86.00%	4019
5604       76.67%         6424       78.33%         3103       99.00%         3177       49.67%         767       100.00%         0       100.00%         7072       15.33%         3929       76.33%         3601       35.67%         3145       19.00%	1.00%	7500
6424       78.33%         3103       99.00%         3177       49.67%         767       100.00%         0       100.00%         7072       15.33%         3929       76.33%         3601       35.67%         3145       19.00%	55.00%	6819
3103 99.00% 3177 49.67% 767 100.00% 0 100.00% 7072 15.33% 3929 76.33% 3601 35.67% 3145 19.00%	76.67%	5604
3177 49.67%  767 100.00%  0 100.00%  7072 15.33%  3929 76.33%  3601 35.67%  3145 19.00%	78.33%	6424
767 100.00%  0 100.00%  7072 15.33%  3929 76.33%  3601 35.67%  3145 19.00%	99.00%	3103
0     100.00%       7072     15.33%       3929     76.33%       3601     35.67%       3145     19.00%	49.67%	3177
7072 15.33% 3929 76.33% 3601 35.67% 3145 19.00%	100.00%	767
3929 76.33% 3601 35.67% 3145 19.00%	100.00%	0
3601 35.67% 3145 19.00%	15.33%	7072
3145 19.00%	76.33%	3929
	35.67%	3601
1978 69.33%	19.00%	3145
	69.33%	1978

8763	2.33%
2540	100.00%
4911	79.67%
2851	7.00%
4446	92.33%
3079	23.00%
8367	35.00%
8653	15.33%
853	34.67%
8938	10.00%
3940	15.33%
4019	82.00%
8925	15.00%
6819	8.67%
5604	34.67%
6424	34.67%

3655	89.67%
3177	43.00%
767	100.00%
0	100.00%
7990	16.33%
3929	50.33%
3601	23.00%
3145	65.00%
1978	77.67%
10253	2.00%
2540	33.00%
4911	93.00%
2851	8.33%
5118	65.67%
3699	76.00%
9805	12.33%

10143	2.00%
1596	51.33%
10401	7.33%
3940	52.00%
4019	92.33%
10417	1.67%
7622	39.33%
5604	27.00%
6424	15.00%
3655	92.00%
3765	82.33%
767	100.00%
0	100.00%
7990	36.67%
4726	40.67%
3601	47.33%

3813	66.33%
1978	71.67%
11745	1.67%
2540	100.00%
5736	35.00%
2851	21.33%
6015	40.67%
3699	87.33%
11277	5.67%
11643	0.67%
2418	55.67%
11834	13.33%
4677	52.67%
4629	78.00%
11905	2.33%
7622	10.67%

38.33%
55.33%
51.33%
70.67%
100.00%
100.00%
40.00%
75.67%
100.00%
69.00%
48.67%
3.33%
100.00%
93.00%
68.67%
47.00%

3699	80.67%
12740	7.33%
13143	1.00%
2418	36.33%
13231	20.67%
4677	62.67%
4629	94.67%
13392	2.67%
8459	32.67%
5604	52.00%
6424	22.00%
4180	95.00%
4400	73.00%
767	100.00%
0	100.00%
9813	15.33%

4726	50.67%
3601	61.67%
3813	98.67%
1978	53.33%
14706	4.33%
2540	100.00%
6293	88.67%
3793	11.67%
6015	88.67%
4229	94.00%
14085	31.00%
13143	1.00%
3080	67.67%
14718	2.67%
4677	80.00%
5226	80.67%

14882	2.00%
9381	35.67%
6476	25.67%
7309	23.00%
4798	96.50%
4400	100.00%
767	100.00%
0	100.00%
10893	24.00%
5321	81.00%
3601	100.00%
3813	100.00%
1978	74.50%
16166	8.00%
2540	100.00%
6293	92.50%

3793	36.50%
6015	97.00%
4229	84.50%
15585	2.00%
14143	1.50%
3080	89.50%
16201	3.50%
4677	98.00%
5226	95.00%
16365	3.50%
9381	39.00%
7494	16.50%
8299	22.00%

Answer Time (seconds)	
	9,1
	10,9
	30
	30
	3,2
	11,1
	7,9
	6,5
	20,1
	5,7
	11,2
	13,9
	4,2
	6,8
	11,6

14,3 15,1 8,8 0,4 5,6 9,7 0,3 6,4 4,8 8,5 29,9 15,2 14 30 7,1	
8,8 0,4 5,6 9,7 0,3 6,4 4,8 8,5 29,9 15,2 14 30 7,1	14,3
0,4 5,6 9,7 0,3 6,4 4,8 8,5 29,9 15,2 14 30 7,1	15,1
5,6 9,7 0,3 6,4 4,8 8,5 29,9 15,2 14 30 7,1	8,8
9,7 0,3 6,4 4,8 8,5 29,9 15,2 14 30 7,1	0,4
0,3 6,4 4,8 8,5 29,9 15,2 14 30 7,1	5,6
6,4 4,8 8,5 29,9 15,2 14 30	9,7
4,8 8,5 29,9 15,2 14 30 7,1	0,3
8,5 29,9 15,2 14 30 7,1	6,4
29,9 15,2 14 30 7,1	4,8
15,2 14 30 7,1	8,5
30 7,1	29,9
7,1	15,2
7,1	14
	30
17,1	7,1
	17,1

6,8 11,5 25,5 3,9 7,8 29,3 3,4 25,6 3,4 3,8 1,1
25,5 3,9 7,8 29,3 3,4 25,6 3,4 3,8 1,1
3,9 7,8 29,3 3,4 25,6 3,4 3,8 1,1
7,8 29,3 3,4 25,6 3,4 3,8
29,3 3,4 25,6 3,4 3,8
3,4 25,6 3,4 3,8
25,6 3,4 3,8 1,1
3,4 3,8 1,1
3,8
1,1
5,3
0,7
4,8
20,5
0,2

2,2
4,6
2,2
24,6
14,6
30
30
1,3
16,4
8,8
28,8
22,6
1,3
9,9
23
3,7

10,4 24,1 2,7 0,3 15,6 0,2 3,9 11,7 0,3 3 4,1 5 18,9 30 30	
2,7 0,3 15,6 0,2 3,9 11,7 0,3 3 4,1 5 18,9 30	10,4
0,3 15,6 0,2 3,9 11,7 0,3 3 4,1 5 18,9 30	24,1
15,6 0,2 3,9 11,7 0,3 3 4,1 5 18,9 30	2,7
0,2 3,9 11,7 0,3 3 4,1 5 18,9 30	0,3
3,9 11,7 0,3 3 4,1 5 18,9 30	15,6
11,7 0,3 3 4,1 5 18,9 30	0,2
0,3 3 4,1 5 18,9 30	3,9
3 4,1 5 18,9 30	11,7
4,1 5 18,9 30	0,3
5 18,9 30	3
30	4,1
30	5
30	18,9
	30
30	30
	30

2,1
29
30
25,5
14,5
1,2
14,6
14,6
7,3
6,8
11,3
1,2
0,3
19,9
0,4
4,6

27,1
0,2
4,6
3,2
13
19,2
27,1
30
30
4,6
28,9
18,4
8,5
30
0,8
30

24,6
5,9
18,1
26,3
2,7
0,4
20,3
0,3
7,5
26,5
0,4
8,1
7,1
12,3
28,6
26,7

23 30 7,4 26,7 30 22,9 26,7 0,6 30 25,4 2,2 27,2 9,8 2,8 0,4 10,8	
7,4 26,7 30 22,9 26,7 0,6 30 25,4 2,2 27,2 9,8 2,8 0,4	23
26,7 30 22,9 26,7 0,6 30 25,4 2,2 27,2 9,8 2,8	30
22,9 26,7 0,6 30 25,4 2,2 27,2 9,8 2,8	7,4
22,9 26,7 0,6 30 25,4 2,2 27,2 9,8 2,8	26,7
26,7 0,6 30 25,4 2,2 27,2 9,8 2,8	30
0,6 30 25,4 2,2 27,2 9,8 2,8	22,9
25,4 25,2 27,2 9,8 2,8	26,7
25,4 2,2 27,2 9,8 2,8 0,4	0,6
2,2 27,2 9,8 2,8	30
27,2 9,8 2,8	25,4
9,8 2,8 0,4	2,2
0,4	27,2
0,4	9,8
	2,8
10,8	0,4
	10,8

0,4
12,1
25,8
0,3
16,5
23
23,5
29,7
14,9
30
30
4,6
22,9
10,7
5,7
20,8

0,7
30
23,9
2,1
27,7
6,9
10,5
4,6
10,4
3
4,6
24,6
4,5
2,6
10,4
10,4

26,9
12,9
30
30
4,9
15,1
6,9
19,5
23,3
0,6
9,9
27,9
2,5
19,7
22,8
3,7

0,6
15,4
2,2
15,6
27,7
0,5
11,8
8,1
4,5
27,6
24,7
30
30
11
12,2
14,2

19,9
21,5
0,5
30
10,5
6,4
12,2
26,2
1,7
0,2
16,7
4
15,8
23,4
0,7
3,2

11,	5
16,	6
15,	4
21,:	2
3	0
3	0
1:	2
22,	7
3	0
20,	7
14,	6
	1
3	0
27,	9
20,	6
14,	1

24,2
2,2
0,3
10,9
6,2
18,8
28,4
0,8
9,8
15,6
6,6
28,5
21,9
30
30
4,6

15,2
18,5
29,6
16
1,3
30
26,6
3,5
26,6
28,2
9,3
0,3
20,3
0,8
24
24,2

0,6 10,7 7,7 6,9 19,3 20 20 4,8 16,2 20 14,9 1,6 20	
7,7 6,9 19,3 20 20 4,8 16,2 20 14,9 1,6	0,6
6,9 19,3 20 20 4,8 16,2 20 14,9 1,6	10,7
19,3 20 20 4,8 16,2 20 14,9 1,6	7,7
20 20 4,8 16,2 20 20 14,9 1,6	6,9
20 20 4,8 16,2 20 20 14,9 1,6	19,3
20 4,8 16,2 20 20 14,9 1,6	20
4,8 16,2 20 20 14,9 1,6	20
16,2 20 20 14,9 1,6	20
20 20 14,9 1,6	4,8
20 14,9 1,6	16,2
14,9 1,6 20	20
20	20
20	14,9
	1,6
18,5	20
	18,5

7,3
19,4
16,9
0,4
0,3
17,9
0,7
19,6
19
0,7
7,8
3,3
4,4