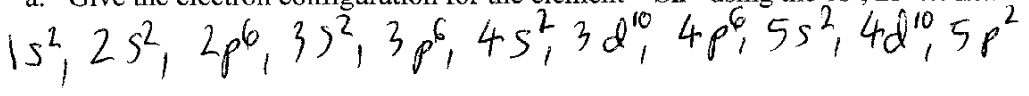


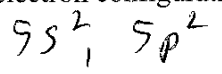
Name Kely (print name) Name _____ (sign name)

Please show all work for full credit.

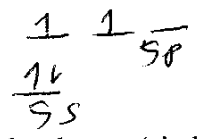
1. a. Give the electron configuration for the element **Sn** using the $1s^2, 2s^2 \dots$ nomenclature (4 pts)



b. Give the **valence** electron configuration for the element using the same notation. (3 pts)



c. Give the **orbital diagram** for the **valence** electrons of the element including showing the electrons as up or down arrows. (3 pts)



d. The bigger atomic size (atomic radius) is the element (circle one) (Li) or (K) (1 pt)

e. The bigger ionization energy is for the element (circle one) (Na) or (Rb) (1 pt)

f. The more reactive element is (circle one) (Li) or (K) (1 pt)

2. In the **p** subshell, there are 3 (give # in blank) orbitals. (2 pt)

Maximum number of electrons in the **p** subshell is 6 (give # in blank) (3 pts)

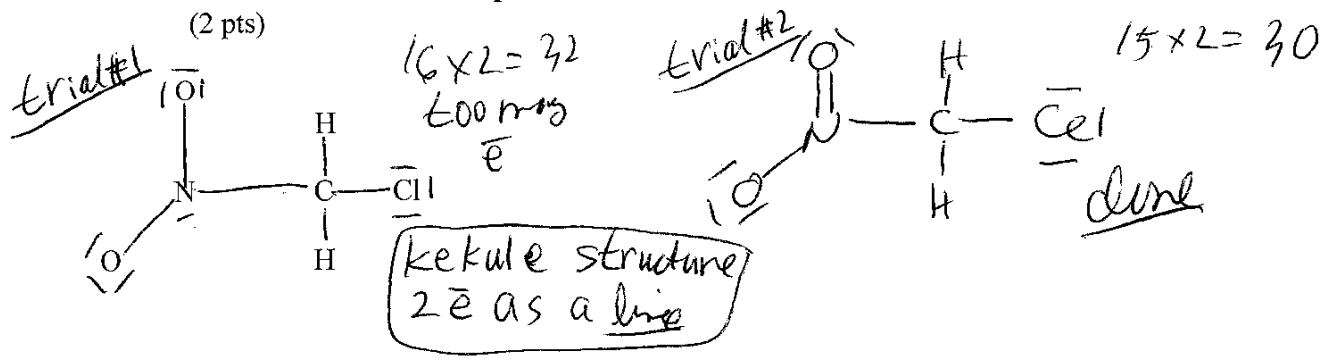
The **s** block of the periodic table consists of Group IA to Group IIA. (using the exact group number in the periodic table handed out with this quiz) (2 pts)

Extra Credit: Give the Lewis Dot Structure for the molecule for which I have provided the formula and frame by:

a. Give the total number of valence electrons for the molecule 30 (1 pt)

$5 + 2(6) + 4 + 2(1) + 7 = 30$

b. Complete the Lewis Dot Structure (If you need space for a trial structure, please use the back of the page. You do not need to show the final structure in the space below just write in space below that the structure is shown on the back.) **Hint: Lewis Dot structure has one double bond. Carbon cannot expand the octet.** Formula for the Lewis Dot structure is: $\text{NO}_2\text{CH}_2\text{Cl}$ (2 pts)



Name Key (print name) Name _____ (sign name)

Please show all work for full credit.

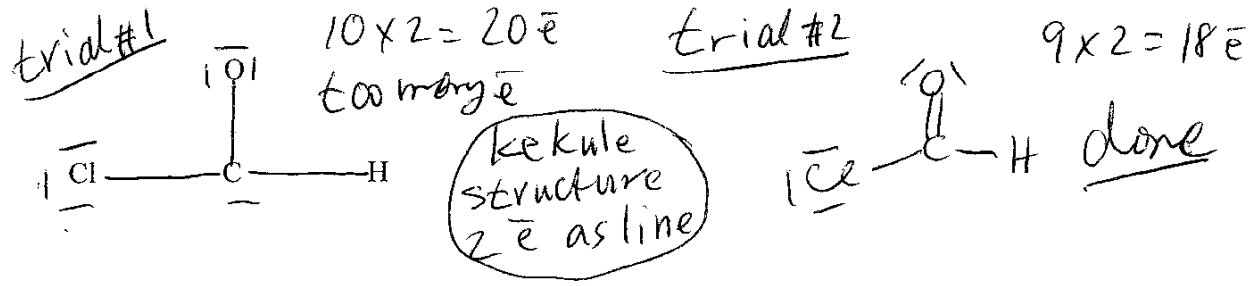
1. a. Give the electron configuration for the element **Xe** using the $1s^2, 2s^2 \dots$ nomenclature (4 pts)
 $1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6$
 - b. Give the **valence** electron configuration for the element using the same notation. (3 pts)
 $5s^2, 5p^6$
 - c. Give the **orbital diagram** for the **valence** electrons of the element including showing the electrons as up or down arrows. (3 pts)

$$\begin{array}{c} \uparrow\downarrow \quad \uparrow\downarrow \quad \uparrow\downarrow \\ 5s \quad 5p \end{array}$$
 - d. The bigger atomic size (atomic radius) is the element (circle one) (Li) or (Be) (1 pt)
 - e. The bigger ionization energy is for the element (circle one) (K) or (Ca) (1 pt)
 - f. The more reactive element is (circle one) (Rb) or (Li) (1 pt)
2. In the **d** subshell, there are 5 (give # in blank) orbitals. (2 pt)
- Maximum number of electrons in the **d** subshell is 10 (give # in blank) (3 pts)

The **p** block of the periodic table consists of Group III A to Group VIII A (using the exact group number in the periodic table handed out with this quiz) (2 pts)

Extra Credit: Give the Lewis Dot Structure for the molecule for which I have provided the formula and frame by:

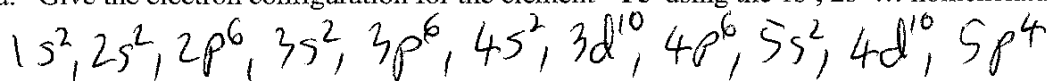
- a. Give the total number of valence electrons for the molecule 18 (1 pt)
 $7 + 4 + 6 + 1 = 18$
- b. Complete the Lewis Dot Structure (If you need space for a trial structure, please use the back of the page. You do not need to show the final structure in the space below just write in space below that the structure is shown on the back.) **Hint: Lewis Dot structure has one double bond. Carbon cannot expand octet.** Formula for the Lewis Dot structure is: **ClCOH** (2 pts)



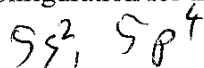
Name Key Name _____
 (print name) (sign name)

Please show all work for full credit.

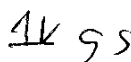
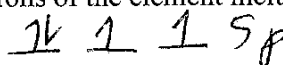
1. a. Give the electron configuration for the element **Te** using the $1s^2, 2s^2 \dots$ nomenclature (4 pts)



- b. Give the **valence** electron configuration for the element using the same notation. (3 pts)



- c. Give the **orbital diagram** for the **valence** electrons of the element including showing the electrons as up or down arrows. (3 pts)



- d. The bigger atomic size (atomic radius) is the element (circle one) (N) or (P) (1 pt)

- e. The bigger ionization energy is for the element (circle one) (C) or (Ge) (1 pt)

- f. The more reactive element is (circle one) (K) or (Na) (1 pt)

2. In the **f** subshell, there are 7 (give # in blank) orbitals. (2 pt)

Maximum number of electrons in the **f** subshell is 14 (give # in blank) (3 pts)

The **s** block of the periodic table consists of Group IA to Group IIA. (using the exact group number in the periodic table handed out with this quiz) (2 pts)

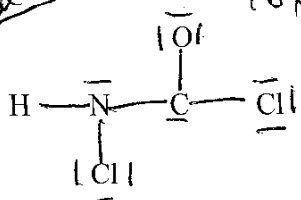
Extra Credit: Give the Lewis Dot Structure for the molecule for which I have provided the formula and frame by:

- a. Give the total number of valence electrons for the molecule 30 (1 pt)

$1 + 5 + 2(7) + 4 + 6 = 30$

- b. Complete the Lewis Dot Structure (If you need space for a trial structure, please use the back of the page. You do not need to show the final structure in the space below just write in space below that the structure is shown on the back.) **Hint: Lewis Dot structure has one double bond. Carbon and Nitrogen cannot expand its octet.** Formula for the Lewis Dot structure is: **H N Cl₂ C O** (2 pts)

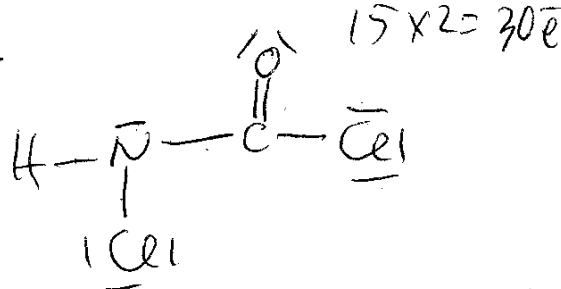
trial #1



$16 \times 2 = 32$
 too many e^-

trial #2

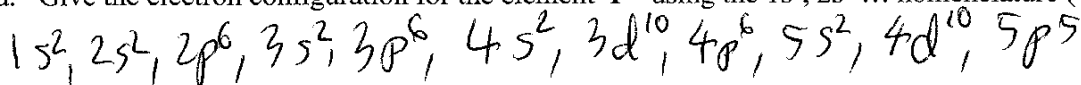
kekule structure
 2e as line



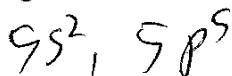
Name Key (print name) Name _____ (sign name)

Please show all work for full credit.

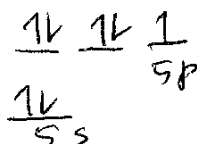
1. a. Give the electron configuration for the element I using the $1s^2, 2s^2 \dots$ nomenclature (4 pts)



- b. Give the **valence** electron configuration for the element using the same notation. (3 pts)



- c. Give the **orbital diagram** for the **valence** electrons of the element including showing the electrons as up or down arrows. (3 pts)



- d. The bigger atomic size (atomic radius) is the element (circle one) (N) or (F) (1 pt)

- e. The bigger ionization energy is for the element (circle one) (P) or (Cl) (1 pt)

- f. The more reactive element is (circle one) (Na) or (Rb) (1 pt)

2. In the **p** subshell, there are 3 (give # in blank) orbitals. (2 pt)

Maximum number of electrons in the **p** subshell is 6 (give # in blank) (3 pts)

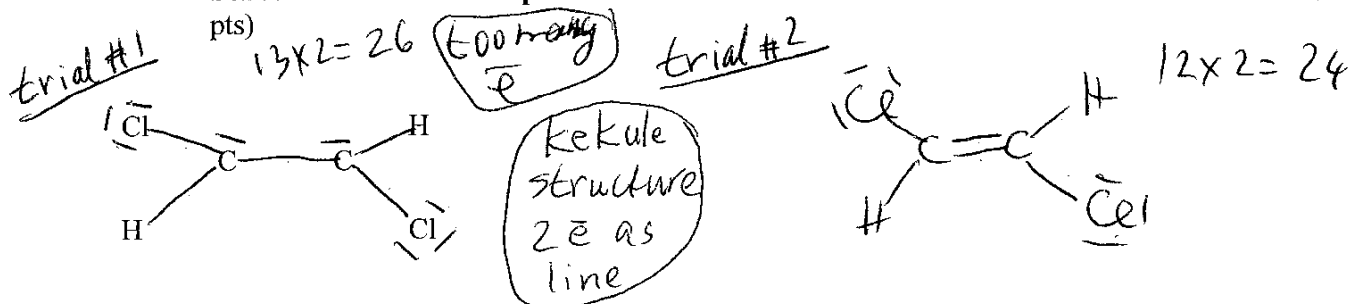
The **p** block of the periodic table consists of Group III A to Group VIII A. (using the exact group number in the periodic table handed out with this quiz) (2 pts)

Extra Credit: Give the Lewis Dot Structure for the molecule for which I have provided the formula and frame by:

- a. Give the total number of valence electrons for the molecule 24 (1 pt)

$2(4) + 2(7) + 2(1) = 24$

- b. Complete the Lewis Dot Structure (If you need space for a trial structure, please use the back of the page. You do not need to show the final structure in the space below just write in space below that the structure is shown on the back.) **Hint: Lewis Dot structure has one double bond. Carbon cannot expand its octet.** Formula for the Lewis Dot structure is: $C_2Cl_2H_2$ (2 pts)



Name _____ Name _____
(print name) (sign name)

Please show all work for full credit.

1. a. Give the electron configuration for the element **Sn** using the $1s^2, 2s^2 \dots$ nomenclature (4 pts)
 - b. Give the **valence** electron configuration for the element using the same notation. (3 pts)
 - c. Give the **orbital diagram** for the **valence** electrons of the element including showing the electrons as up or down arrows. (3 pts)
 - d. The bigger atomic size (atomic radius) is the element(circle one) (Li) or (K) (1 pt)
 - e. The bigger ionization energy is for the element (circle one) (Na) or (Rb) (1 pt)
 - f. The more reactive element is (circle one) (Li) or (K) (1 pt)
2. In the **p** subshell, there are _____ (give # in blank) orbitals. (2 pt)
- Maximum number of electrons in the **p** subshell is _____ (give # in blank) (3 pts)
- The **s** block of the periodic table consists of Group _____ to Group _____. (using the exact group number in the periodic table handed out with this quiz) (2 pts)

Extra Credit: Give the Lewis Dot Structure for the molecule for which I have provided the formula and frame by:

- a. Give the total number of valence electrons for the molecule _____ (1 pt)
- b. Complete the Lewis Dot Structure (If you need space for a trial structure, please use the back of the page. You do not need to show the final structure in the space below just write in space below that the structure is shown on the back.) **Hint: Lewis Dot structure has one double bond. Carbon cannot expand the octet.** Formula for the Lewis Dot structure is: **NO₂CH₂Cl** (2 pts)

O		
	H	
N	C	Cl
O	H	

Name _____ Name _____
(print name) (sign name)

Please show all work for full credit.

1. a. Give the electron configuration for the element **Xe** using the $1s^2, 2s^2 \dots$ nomenclature (4 pts)
 - b. Give the **valence** electron configuration for the element using the same notation. (3 pts)
 - c. Give the **orbital diagram** for the **valence** electrons of the element including showing the electrons as up or down arrows. (3 pts)
 - d. The bigger atomic size (atomic radius) is the element(circle one) (Li) or (Be) (1 pt)
 - e. The bigger ionization energy is for the element (circle one) (K) or (Ca) (1 pt)
 - f. The more reactive element is (circle one) (Rb) or (Li) (1 pt)
2. In the **d** subshell, there are _____ (give # in blank) orbitals. (2 pt)
- Maximum number of electrons in the **d** subshell is _____ (give # in blank) (3 pts)
- The **p** block of the periodic table consists of Group _____ to Group _____. (using the exact group number in the periodic table handed out with this quiz) (2 pts)

Extra Credit: Give the Lewis Dot Structure for the molecule for which I have provided the formula and frame by:

- a. Give the total number of valence electrons for the molecule _____ (1 pt)
- b. Complete the Lewis Dot Structure (If you need space for a trial structure, please use the back of the page. You do not need to show the final structure in the space below just write in space below that the structure is shown on the back.) **Hint: Lewis Dot structure has one double bond. Carbon cannot expand octet.** Formula for the Lewis Dot structure is: **Cl C O H** (2 pts)

O

Cl C H

Name _____ Name _____
(print name) (sign name)

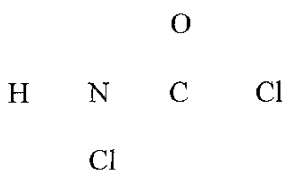
Please show all work for full credit.

1. a. Give the electron configuration for the element **Te** using the $1s^2, 2s^2 \dots$ nomenclature (4 pts)
 - b. Give the **valence** electron configuration for the element using the same notation. (3 pts)
 - c. Give the **orbital diagram** for the **valence** electrons of the element including showing the electrons as up or down arrows. (3 pts)
 - d. The bigger atomic size (atomic radius) is the element(circle one) (N) or (P) (1 pt)
 - e. The bigger ionization energy is for the element (circle one) (C) or (Ge) (1 pt)
 - f. The more reactive element is (circle one) (K) or (Na) (1 pt)
2. In the **f** subshell, there are _____ (give # in blank) orbitals. (2 pt)
- Maximum number of electrons in the **f** subshell is _____ (give # in blank) (3 pts)

The **s** block of the periodic table consists of Group _____ to Group _____. (using the exact group number in the periodic table handed out with this quiz) (2 pts)

Extra Credit: Give the Lewis Dot Structure for the molecule for which I have provided the formula and frame by:

- a. Give the total number of valence electrons for the molecule _____ (1 pt)
- b. Complete the Lewis Dot Structure (If you need space for a trial structure, please use the back of the page. You do not need to show the final structure in the space below just write in space below that the structure is shown on the back.) **Hint: Lewis Dot structure has one double bond. Carbon and Nitrogen cannot expand its octet.** Formula for the Lewis Dot structure is: **H N C₂ C O** (2 pts)



Name _____ Name _____
(print name) (sign name)

Please show all work for full credit.

1. a. Give the electron configuration for the element **I** using the $1s^2, 2s^2 \dots$ nomenclature (4 pts)
 - b. Give the **valence** electron configuration for the element using the same notation. (3 pts)
 - c. Give the **orbital diagram** for the **valence** electrons of the element including showing the electrons as up or down arrows. (3 pts)
 - d. The bigger atomic size (atomic radius) is the element(circle one) (N) or (F) (1 pt)
 - e. The bigger ionization energy is for the element (circle one) (P) or (Cl) (1 pt)
 - f. The more reactive element is (circle one) (Na) or (Rb) (1 pt)
2. In the **p** subshell, there are _____ (give # in blank) orbitals. (2 pt)
- Maximum number of electrons in the **p** subshell is _____ (give # in blank) (3 pts)
- The **p** block of the periodic table consists of Group _____ to Group _____. (using the exact group number in the periodic table handed out with this quiz) (2 pts)

Extra Credit: Give the Lewis Dot Structure for the molecule for which I have provided the formula and frame by:

- a. Give the total number of valence electrons for the molecule _____ (1 pt)
- b. Complete the Lewis Dot Structure (If you need space for a trial structure, please use the back of the page. You do not need to show the final structure in the space below just write in space below that the structure is shown on the back.) **Hint: Lewis Dot structure has one double bond. Carbon cannot expand its octet.** Formula for the Lewis Dot structure is: $C_2Cl_2H_2$ (2 pts)

