

Name : \_\_\_\_\_ Date : \_\_\_\_\_

# Valence Electrons

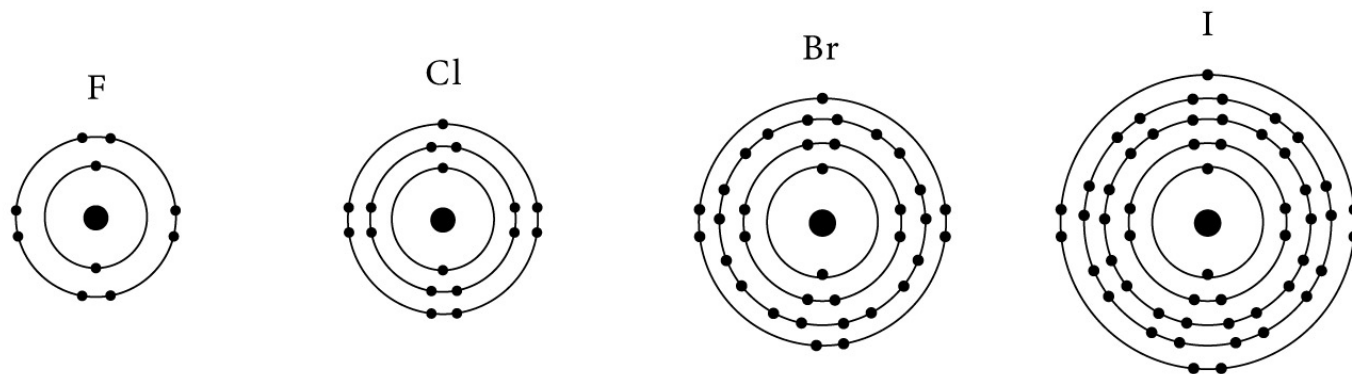
1 How many electrons are present in the following elements?

- a Carbon \_\_\_\_      b Chlorine \_\_\_\_      c Indium \_\_\_\_      d Calcium \_\_\_\_  
 e Tungsten \_\_\_\_      f Antimony \_\_\_\_      g Titanium \_\_\_\_      h Tin \_\_\_\_

2 Using the periodic table, determine the number of valence electrons for the elements listed below.

- a Copper \_\_\_\_      b Xenon \_\_\_\_      c Hydrogen \_\_\_\_      d Aluminum \_\_\_\_  
 e Barium \_\_\_\_      f Iodine \_\_\_\_      g Carbon \_\_\_\_      h Phosphorous \_\_\_\_

3 Circle the valence electrons only. What is the atomic number?



Atomic number(Z) =

Atomic number(Z) =

Atomic number(Z) =

Atomic number(Z) =

4 Fill in the table with correct values.

Element	Ion symbol	Number of Protons	Number of electrons	Charge	Ion type
Fluorine	F <sup>-</sup>			-1	Anion
		53	54		
		16		-2	
Potassium				+1	
Calcium					

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## Answers

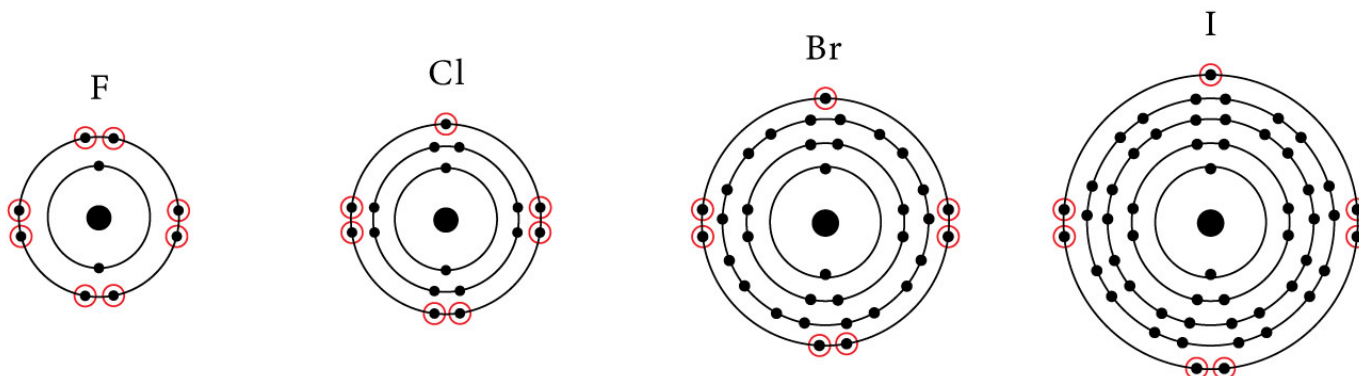
1 How many electrons are present in the following elements?

- a Carbon 6      b Chlorine 17      c Indium 49      d Calcium 20  
 e Tungsten 74      f Antimony 51      g Titanium 22      h Tin 50

2 Using the periodic table, determine the number of valence electrons for the elements listed below.

- a Copper 1      b Xenon 8      c Hydrogen 1      d Aluminum 3  
 e Barium 2      f Iodine 7      g Carbon 4      h Phosphorous 5

3 Circle the valence electrons only. What is the atomic number?



Atomic number(Z) = 9

Atomic number(Z) = 17

Atomic number(Z) = 35

Atomic number(Z) = 53

4 Fill in the table with correct values.

Element	Ion symbol	Number of Protons	Number of electrons	Charge	Ion type
Fluorine	F <sup>-</sup>	9	10	-1	Anion
Iodine	I <sup>-</sup>	53	54	-1	Anion
Sulfur	S <sup>2-</sup>	16	18	-2	Anion
Potassium	K <sup>+</sup>	19	18	+1	Cation
Calcium	Ca <sup>2+</sup>	20	18	+2	Cation