

# VALENCY OF AN ELEMENT

In case of metals, the valency is the same as the group no. That is, it's the same as the number of electrons in the last orbit.

For non-metal atoms, the common valency  $8 - \text{Group No.}$

Elements	Na	Mg	Al	Si	P	S	Cl	Ar
Atomic No	11	12	13	14	15	16	17	18
E. C	2,8,1	2,8,2	2,8,3	2,8,4	2,8,5	2,8,6	2,8,7	2,8,8
Valency	1	2	3	4	3	2	1	0

Q. An element X has an atomic no. 8. An element Y has an atomic no. 11. Write down the formula of the compound formed between X and Y.

→ Valency = 2

X = 8    E.C = 2,6

Compound =  $Y_2X$

Y = 11    E.C = 2,8,1

\* In compound writing → the metal comes first

Q. An element X has an atomic no. 8 and element Y has an atomic no. 20. Write down the formula of the compound formed between X and Y.

$X = 8$ , E.C. = 2, 6, Valency = 2

$Y = 20$ , E.C. = 2, 8, 8, 2, Valency = 2

Compound =  $YX$

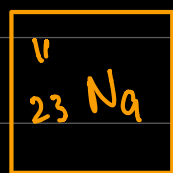
Q. P has an atomic no. 6. Write down the formula of the compound formed when P reacts with hydrogen.

$P = 6$ , E.C. = 2, 4, Valency = 4

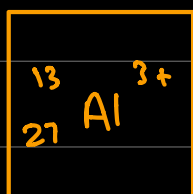
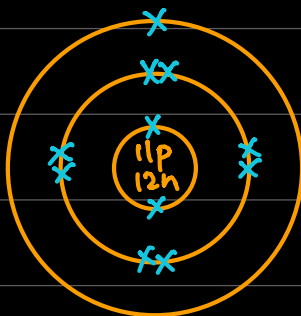
$H = 1$ , E.C. = 1, Valency = 1

Compound =  $PH_4$

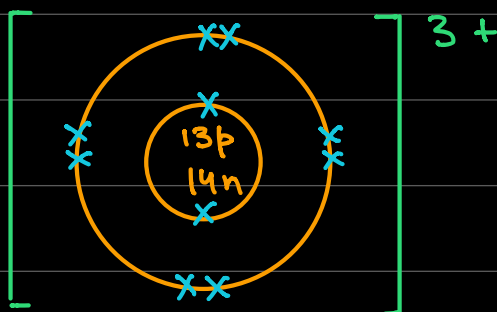
Q. Draw dot and cross diagram to show the structures of the following particles.

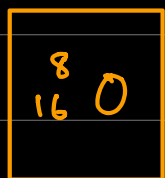


E.C. = 2, 8, 1

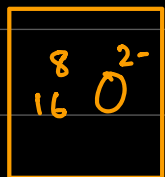
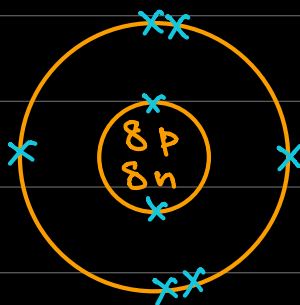


E.C. = 2, 8.





E.C = 2, 6



E.C = 2, 8

