

Answer to p26 Exercises:

1. Give the total number of electrons in the following and describe how the neutral atom became that way.

a) F^- protons – charge = electrons

$$9 - (-1) = 10, \text{ so it gained } 1 e^-$$

b) K^+

$$19 - (1) = 18, \text{ so it lost } 1 e^-$$

c) Cu^{+2}

$$29 - (2) = 27, \text{ so it lost } 2 e^-$$

d) B^{+3}

$$5 - 3 = 2, \text{ so it lost } 3 e^-$$

e) O^{-2}

$$8 - (-2) = 10, \text{ so it gained } 2 e^-$$

2. Complete the following table:

Element	Bohr Rutherford Model	Lewis Notation
H	(1p) 1e	H ·
H^+	(1p)	H
P	(15p) 2e)8e)5e	:P: ·

P^{3-}	(15p) 2e)8e)8e	$ \begin{array}{c} \cdot\cdot \\ \cdot\mathbf{P}\cdot \\ \cdot\cdot \end{array} $
Ca	(20p) 2e)8e)8e)2e	Ca:
Ca^{+2}	(20p) 2e)8e)8e)	Ca