

Solutions

Each answer shows the steps, then the **result**.

2.1

- $2(1) + 6 = 8$

2.2

- $5 + 3(1) = 8$

2.3

- Two lone pairs

3.1 C

- $5 + 3(6) + 1 = 24$ (the +1 for the negative charge)

3.2

(a)

- 16

(b)

- Each O forms a **double** bond with C, so all atoms reach an octet

3.3

- N_2 : $2(5) = 10$ valence electrons; a **triple** bond between the N atoms, leaving one lone pair on each N