

Solutions

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

2.1

- The number of electrons in that subshell

2.2

- Those closest to the nucleus

2.3

- $1s$, $2s$, and $2p$

2.4

- Three times ($2p$ holds 6, $2s$ holds 2)

3.1 B

- a higher binding energy means closer to the nucleus

3.2 A

- $2 : 2 : 6$ matches $1s^2 2s^2 2p^6$

3.3

(a)

- $1s^2 2s^2 2p^6 3s^1$

(b)

- The $1s$ peak

3.4

(a)

- The small peak (higher binding energy)

(b)

- It has more electrons in that subshell