

Solutions

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

2.1

- 0

2.2

- $S + 4(-2) = -2 \Rightarrow S = +6$

2.3

- Oxidized (loses electrons)

3.1 B

- loss of electrons

3.2

(a)

- Fe: $0 \rightarrow +2$; Cu: $+2 \rightarrow 0$

(b)

- Fe is oxidized; Cu^{2+} is reduced

3.3

- Zn is oxidized ($0 \rightarrow +2$), so Zn is the reducing agent; H^+ is reduced ($+1 \rightarrow 0$), so HCl is the oxidizing agent