

Solutions

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

2.1

- $p = mv = 5 \times 3 = 15 \text{ kg m s}^{-1}$

2.2

- kg m s^{-1}

2.3

- $p = 2 \times (-6) = -12 \text{ kg m s}^{-1}$

2.4

- $v = p/m = 24/4 = 6 \text{ m s}^{-1}$

3.1 B

- $p = mv$

3.2 C

- momentum is a vector

3.3

(a)

- $p = 1200 \times 15 = 1.8 \times 10^4 \text{ kg m s}^{-1}$

(b)

- East

3.4

(a)

- A: 24 kg m s^{-1} ; B: 24 kg m s^{-1}

(b)

- Equal