

Solutions

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

2.1

- $v = f\lambda = 20 \times 1.5 = 30 \text{ m s}^{-1}$

2.2

- $f = \frac{1}{T} = \frac{1}{0.25} = 4.0 \text{ Hz}$

2.3

- $v = f\lambda$

3.1 B

3.2 B

3.3

(a)

- $\lambda = \frac{v}{f} = \frac{340}{170} = 2.0 \text{ m}$

(b)

- $T = \frac{1}{f} = \frac{1}{170} = 5.9 \times 10^{-3} \text{ s}$