

Exercise 26

Using the approximate conversion factors in Table 1.5, convert the following SI units to English units *without* using your calculator.

- a. 30 cm b. 25 m/s
c. 5 km d. 0.5 cm
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Solution

The approximate conversion factors are in Table 1.5 on page 24.

- a. $30 \cancel{\text{cm}} \times \frac{4 \text{ in}}{10 \cancel{\text{cm}}} \approx 12 \text{ in}$
- b. $25 \cancel{\text{m/s}} \times \frac{2 \text{ mph}}{1 \cancel{\text{m/s}}} \approx 50 \text{ mph}$
- c. $5 \cancel{\text{km}} \times \frac{1000 \cancel{\text{m}}}{1 \cancel{\text{km}}} \times \frac{3 \text{ ft}}{1 \cancel{\text{m}}} \approx 15000 \text{ ft}$
- d. $0.5 \cancel{\text{cm}} \times \frac{4 \text{ in}}{10 \cancel{\text{cm}}} \approx 0.2 \text{ in}$