

Exercise 27

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

- a. 20 ft b. 60 mi
c. 60 mph d. 8 in
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Solution

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

a. $20 \cancel{\text{ft}} \times \frac{1 \text{ m}}{3 \cancel{\text{ft}}} \approx 6.7 \text{ m}$

b. $60 \cancel{\text{mi}} \times \frac{1 \text{ km}}{0.6 \cancel{\text{mi}}} \approx 100 \text{ km}$

c. $60 \cancel{\text{mph}} \times \frac{1 \cancel{\text{m/s}}}{2 \cancel{\text{mph}}} \approx 30 \text{ m/s}$

d. $8 \cancel{\text{in}} \times \frac{10 \text{ cm}}{4 \cancel{\text{in}}} \approx 20 \text{ cm}$