# Chapter Review

**1.** Calculate. For example:

**a)** $12\frac{3}{8} + 7\frac{3}{4} = 12\frac{3}{8} + 7\frac{6}{8}$

$= 20\frac{1}{8}$

**b)** $\frac{1}{6} \times 18\frac{3}{4} = 3 + \frac{3}{24}$

$= 3\frac{1}{8}$

**c)** $9\frac{7}{16} - 2\frac{7}{8} = 8\frac{23}{16} - 2\frac{14}{16}$

$= 6\frac{9}{16}$

**d)** $8\frac{3}{4} \div \frac{1}{2} = \frac{35}{4} \div \frac{2}{4}$

$= 17\frac{1}{2}$

**2.** How many $8\frac{1}{4}$ in. lengths can Nathan cut from a 25 in. pipe?

e.g., $25 \div 8\frac{1}{4} = 25 \times \frac{4}{33}$

$= \frac{100}{33}$, or $3\frac{1}{33}$

Nathan can cut 3 pieces $8\frac{1}{4}$ in. long from a 25 in. pipe.

**3.** Jessica buys 42.3 L of gas at a cost of $1.09 per litre. How much does it cost for the gas?

e.g., 42.3 L x $1.09/L = $46.11

The gas costs $46.11.

**Hint**

1 km ≐ 0.62 mi
1 mi = 1760 yd
1 mi = 1.61 km

**4.** On Saturday, Adam walked 0.75 km from his house to a golf course. He played the 7185 yd course and then walked home.

**a)** How far did Adam walk to and from the golf course?

e.g., 0.75 km + 0.75 km = 1.5 km

**b)** How far did Adam walk altogether?

e.g., 1 km ≐ 0.62 mi so 1.5 km ≐ 0.93 mi

1 mi = 1760 yd, so 7185 yd ÷ 1760 yd/mi = 4.08 mi

4.08 mi + 0.93 mi = 5.01 mi  Adam walked about 5 miles.

**c)** What units did you use for your answer in Part b)? Why?

e.g., miles; I didn't use yards because I would have had to work with larger numbers in the solution. But I could have changed 4.08 miles to kilometres and used those instead.


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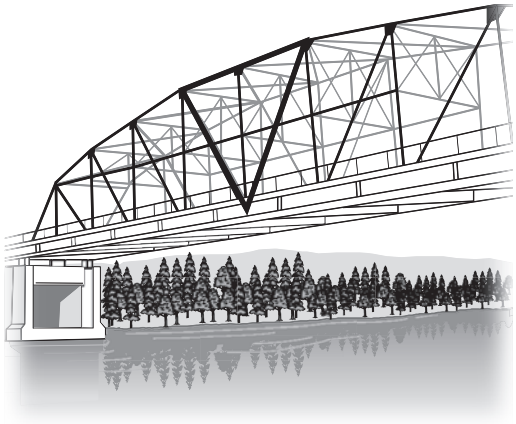
**5.** The triangle highlighted in this bridge design has equal sides. If the perimeter is 17.85 m, how long is each side?



e.g., 17.85 m ÷ 3 = 5.95 m

Each side is 5.95 m long.

**6.** Kiana is making a display for a trade show. She plans to put a decorative border around the display board that is 60 in. tall and 52 in. wide. Borders come in packages of 35 feet. About how much border will be left over from one package?

e.g., Perimeter = 60 in. + 60 in. + 52 in. + 52 in.

= 224 in.

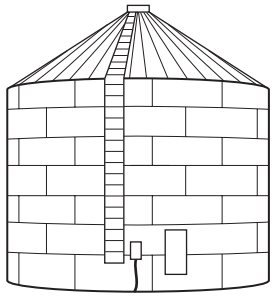
12 in. = 1 ft

224 in. ÷ 12 in./ft = 18.666... ft

35 ft − 18.666... ft = 16.333... ft

About $16\frac{1}{3}$ ft of border will be left over.

**7.** A cylinder-shaped grain bin has a circular base with a diameter of 44 ft.



diameter = 44 ft

**a)** What is the circumference of the bin in feet?

Circumference = π x diameter

= π x 44 ft

= 138.230... ft

The circumference of the bin is about 138.23 ft.

**b)** What is the circumference of the bin in yards?

e.g., 3 ft = 1 yd

138.230... ft ÷ 3 ft/yd = 46.076... yd

The circumference of the bin is about 46 yd.

**c)** What is the circumference of the bin in metres?

**Hint**

Use the charts inside the back cover.

e.g., 1 yd ≐ 0.91 m

46 yd x 0.91 m/yd ≐ 41.86 m

The circumference of the bin is about 41.86 m.

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