Mid-Chapter Review

1. Calculate.

a) $6\frac{1}{4} + 3\frac{1}{8} = 6\frac{2}{8} + 3\frac{1}{8}$

$= 9\frac{3}{8}$

b) $9\frac{1}{2} - 8\frac{3}{4} = \frac{3}{4}$

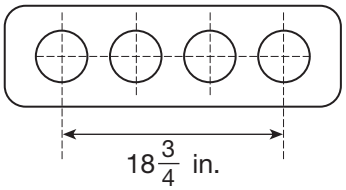
c) $\frac{1}{2} \times 4\frac{1}{4} = \left(\frac{1}{2} \times 4\right) + \left(\frac{1}{2} \times \frac{1}{4}\right)$

$= 2\frac{1}{8}$

d) $8\frac{1}{2} \div \frac{1}{4} = \frac{17}{2} \times 4$

$= 34$

2. The identical holes in this exhaust manifold are equally spaced. What is the distance from the centre of one hole to the centre of the next?



e.g., $18\frac{3}{4}$ in. $\div$ 3 = $6\frac{1}{4}$ in.

The distance from one centre to the next is $6\frac{1}{4}$ in.

3. A carpenter cuts a board 3.6 m long into five equal shelves.

a) What is the length of each shelf in centimetres?

e.g., 3.6 m $\div$ 5 = 0.72 m, or 72 cm

Each shelf is 72 cm long.

b) How can you show that your answer makes sense?

e.g., 5 x 72 cm is close to 5 x 70 cm = 350 cm or 3.5 m

3.5 m is close to 3.6 m, so my answer makes sense.

4. A roll of tubing is 30 ft long. Aram needs to cut off two pieces that are each 2.8 m long.

Hint

1 m $\doteq$ 3.27 ft

1 ft $\doteq$ 0.31 m

a) What length of tubing will be left on the roll?

e.g., 30 ft x 0.31 m/ft $\doteq$ 9.3 m

2.8 m x 2 = 5.6 m 9.3 m − 5.6 m = 3.7 m

There will be 3.7 m of tubing left on the roll.

b) Which units did you use in Part a)? Why?

e.g., I changed feet to metres because I knew 30 x 0.31 m equals about 9.3 m, which is easy to work with, but 2 x 2.8 x 3.27 ft/m would have more decimal places.