

Chapter 1:

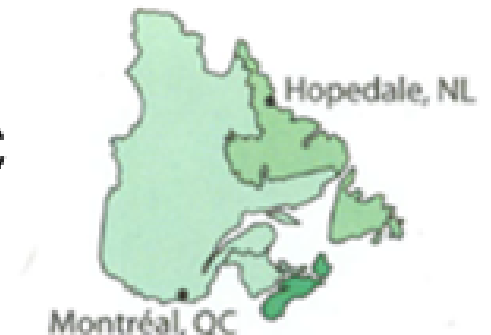
We will start with a little review to make sure that we remember some important things...

1 a) What are four **SI units** used to measure length? List them from shortest to longest.

mm - millimeter
cm - centimeters
m - meters
km - kilometer

1 b) Which SI unit would you use to measure each item?

- the length of a salmon **cm**
- the thickness of a coin **mm**
- the height of an apartment building **m**
- the distance from Hopedale, NL to Montreal, QC
km



2 a) What are four imperial units used to measure length? List them from shortest to longest.

inches -
feet - ft
yard - yd
miles - mi

2 b) Which of these imperial units would you use to measure each item?

- the diameter of a car tire in
- the distance from Labrador City, NL, to Brandon, MB mi
- the width of a football field yd
- the length of a cell phone in



Convert Units

3. Convert each SI length to the unit shown.

Remember...

$$\begin{aligned} 10 \text{ mm} &= 1 \text{ cm} \\ 100 \text{ cm} &= 1 \text{ m} \\ 1000 \text{ m} &= 1 \text{ km} \end{aligned}$$



a) 4.5 meters $\xrightarrow{\times 100}$ 450 centimeters

b) 275 millimeters $\xrightarrow{\div 10}$ 27.5 centimeters

c) 1500 meters $\xrightarrow{\div 1000}$ 1.5 kilometers

d) 1 m 80 cm $\xrightarrow{100+80}$ 180 cm $\xrightarrow{=}$ 1.8 m

$$\begin{aligned} 100 + 80 \\ = \end{aligned}$$

4. Convert each imperial length to the unit shown.

12 inches = 1 ft
3 ft = 1 yard
1 yard = 1760 miles

a) 6 feet $\xrightarrow{\times 12}$ 72 inches

b) 42 inches $\xrightarrow{\div 12}$ 3.5 ft

c) 8 yards $\xrightarrow{\times 3}$ 24 feet

d) 10' 6" $\xrightarrow{\times 12}$ 10.5 ' \rightarrow 126 "

$10 \times 12 = 120'' + 6'' = 126$

$\div 1760$
100 yd \rightarrow 0.625 mi

5. Estimate each length in the unit shown.

a) 6 feet --> 2 meters

Helpful information...

One meter is a little longer than 3 feet...
so 6 feet is close to?

b) 10 miles $\times 1.6$ --> 16 kilometers
(roughly 1.6 km/mile)

c) 20 cm $\div 2.5$ --> 8 inches
(2.5 cm = 1 inch)

d) 10 meters $\div 3$ --> 10 yards --> 30 feet
(1 yard is approximately 1 meter)

6. Solve for y.

$$\text{a) } \frac{3}{8} = \frac{y}{56}$$

$$3(56) = 8y$$

$$\frac{168}{8} = \frac{8y}{8}$$

$$y = 21$$

$$\text{b) } \frac{5}{12} = \frac{y}{60}$$

$$\frac{5(60)}{12} = \frac{12y}{12}$$

$$\frac{300}{12} = y$$

$$25 = y$$

$$\text{c) } \frac{3}{10} = \frac{y}{75}$$

$$\text{d) } \frac{7}{12} = \frac{y}{30}$$

Homework: Finish page5

Area

7. Determine the area of each shape.

Area of a rectangle = length \times width

Area of a circle = πr^2

Area of a triangle = $\frac{1}{2}$ base \times height

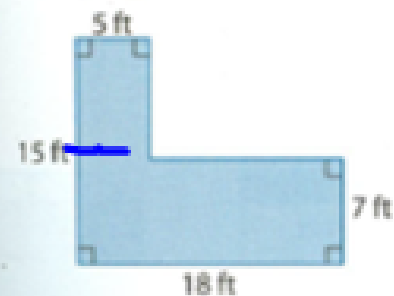
a)



b)



c)



d)



8. Evaluate, without using a calculator.

a) 9×5

b) 7×6

c) 13×10

d) 6×6

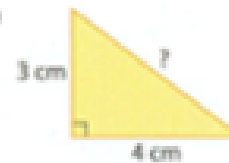
e) 8^2

f) $12 \times 4\frac{1}{2}$

The Pythagorean Relationship

9. Determine the unknown side lengths in each right triangle.

a)



b)



Solving Equations

10. Solve.

a) $P = 2(l + w)$

$l = 5, w = 8$. Solve for P .

b) $V = lwh$

$l = 7, w = 4, h = 2.5$. Solve for V .

c) $A = \frac{1}{2}bh$

$A = 18, b = 3$. Solve for h .

d) $SA = 6r^2$

$s = 1.2$. Solve for SA .