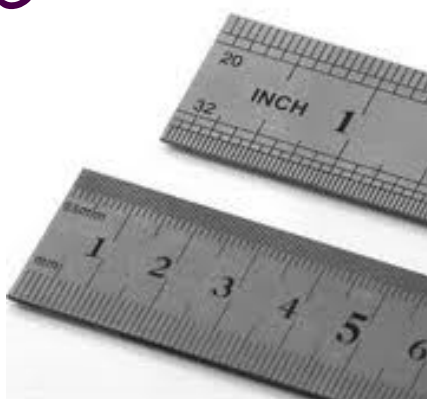


Converting Measurements



SI \longleftrightarrow IMPERIAL

Please Add the following:

IMPORTANT CONVERSIONS...

SI Length	↔	Imperial Length
1 cm = 10 mm 1 m. = 100 cm 1 km = 1000 m		1 ft. = 12 in. 1 yd = 3 ft. 1 mi. = 1760 yd
	1 m = 1.0936 yd 1 mi. = 1.6093 km 1 in. = 2.54 cm	
1m = 3.2808ft		
SI Capacity: 1 L = 1000 mL 1 kL = 1000 L SI Volume: 1 cm ³ = 1 mL		

SI (metric)...	↔	Imperial...
1 g = 1000 mg 1 kg = 1000 g 1 t = 1000 kg	1 kg = 2.2 lbs	1 lb = 16 oz 1 tn = 2000 lb

TEMPERATURE CONVERSIONS...

$$C = \frac{5}{9}(F - 32)$$

$$F = \frac{9}{5}C + 32$$

CONVERTING COMMON COOKING UNITS


Imperial	SI
¼ teaspoon	1.25 mL
½ teaspoon	2.5 mL
1 teaspoon	5 mL
1 tablespoon (3 teaspoons)	15 mL
1 cup	250 mL
1 pint	568.2614 mL
1 quart (2 pt)	1.1365 L
1 gallon (4 qt)	4.5461 L

CONVERTING US IMPERIAL TO SI UNITS

US Imperial	SI
1 fl oz	29.5735 mL
1 pt = 16 fl oz	473.176 mL or 0.473 L
1 qt = 2 pt	946.352 mL or 0.946 L
1 gal = 4 qt	3785.4 mL or 3.785 L

$$\text{Number} \times \left(\frac{\text{Want}}{\text{Have}} \right)$$

Conversion Factor



Determine the following:

a) $15 \text{ m} = \underline{\hspace{2cm}} \text{ yd}$

b) $29 \text{ mi} = \underline{\hspace{2cm}} \text{ km}$

c) $49 \text{ ft} = \underline{\hspace{2cm}} \text{ m}$



a) 15 m = _____ yd



Conversion Factor want
have

yd
m

1.0936

$$15 \times \frac{1.0936}{1}$$

16.404 yd

b) 29 mi = _____ km

Conversion Factor want
have

$$\frac{\text{km}}{\text{mi}} = \frac{1.6093}{1}$$

$$29 \times \frac{1.6093}{1}$$

$$46.6697$$

$$46.67 \text{ km}$$

c) 49 ft = _____ m



Conversion Factor

want
have

m

ft

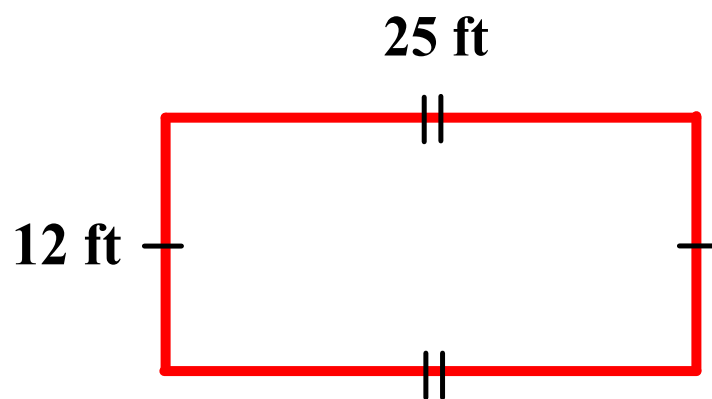
1

3.2808

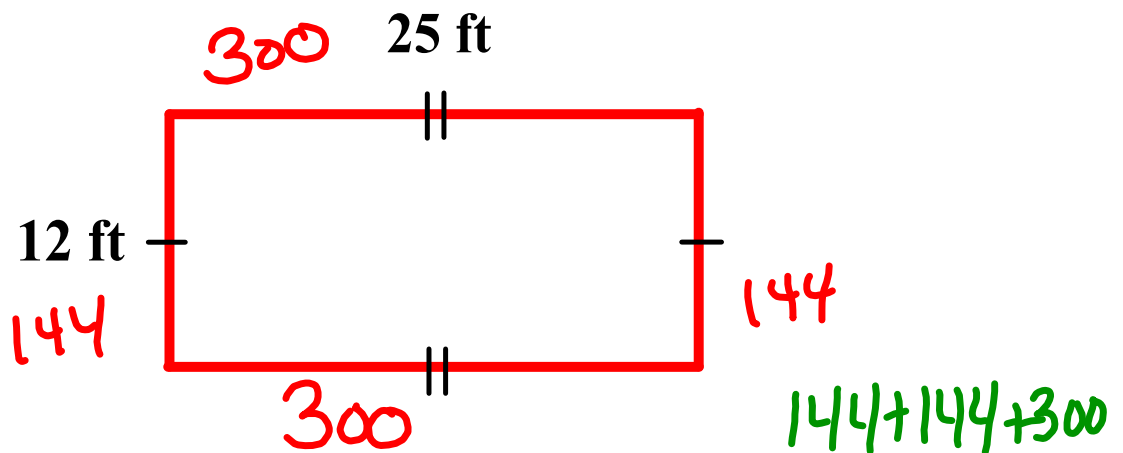
$$49 \times \frac{1}{3.2808}$$

$$\frac{49}{3.2808}$$

$$14.94 \text{ m}$$



Calculate the perimeter in inches.

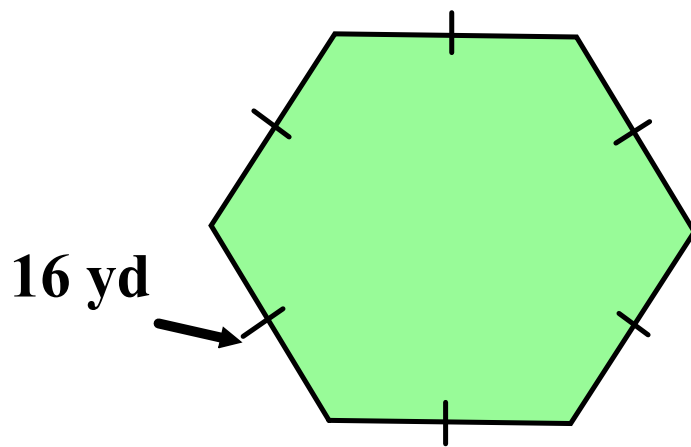


Calculate the perimeter in inches. ⁺³⁰⁰

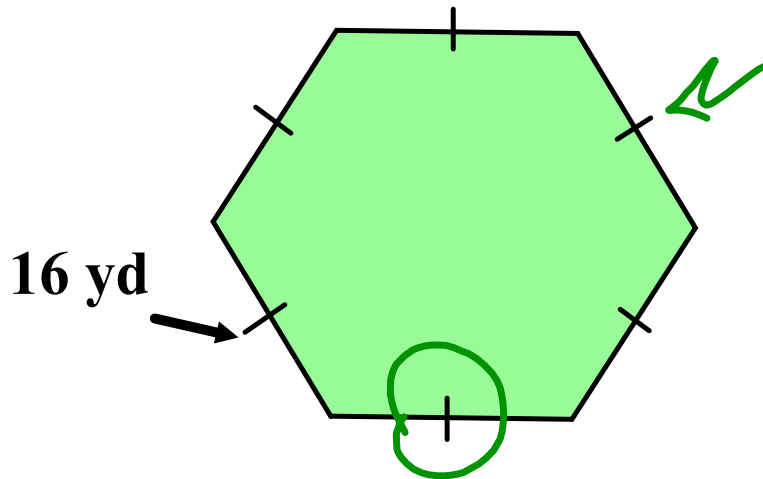
$$\begin{array}{l}
 12 \times \frac{\text{in}}{\text{ft}} \\
 12 \times \frac{12}{1} \\
 \hline
 144 \text{ in.}
 \end{array}$$

$$\begin{array}{l}
 25 \times 12 \\
 = 300 \text{ in.}
 \end{array}$$

Perimeter
888 in



Calculate the perimeter in meters.

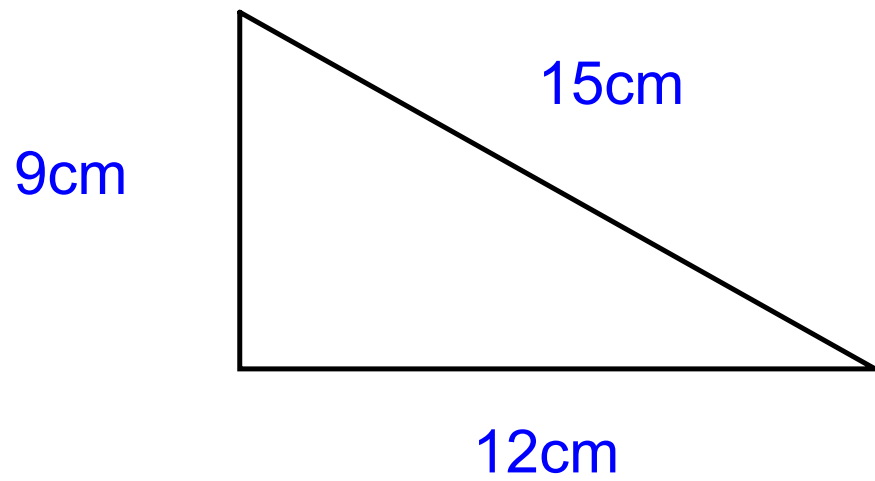


Calculate the perimeter in meters.

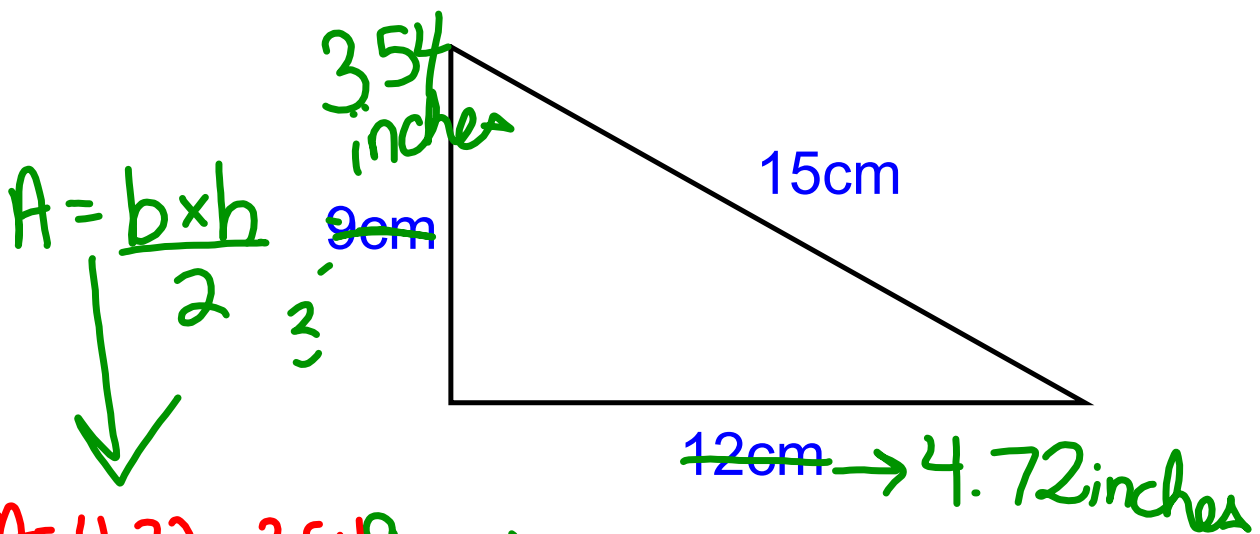
$$\begin{array}{r}
 16 \times \frac{m}{yd} \\
 16 \times 1.0936 \\
 14.63 \\
 m
 \end{array}$$

$$\begin{array}{r}
 14.63 \\
 \times 6 \\
 \hline
 = 87.78 m
 \end{array}$$

Calculate the area inches



Calculate the area inches



$$A = \frac{4.72 \times 3.54}{2} \times \frac{\text{in}}{\text{cm}}$$

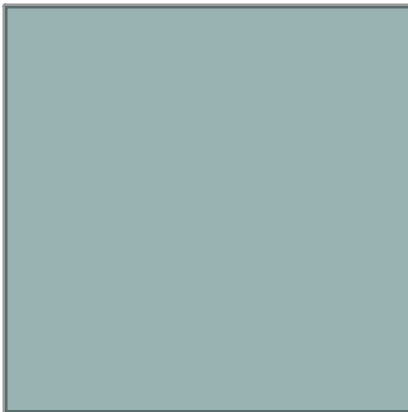
$$A = 8.35 \text{ in}^2 \times \frac{1}{2.54} = 4.72 \text{ in}$$

$$= \underline{\underline{3.54 \text{ in.}}}$$

Homework
Finish worksheet

Giselle would like to replace the carpet in her living room. She used her imperial tape measure to measure the room, and the dimensions were 12 ft by 15 ft. When she went to the carpet store, she found the price of the carpet was \$24.99/m² (taxes included). She cannot order less than a full square metre of carpet.

a) What is the total amount of carpeting needed?

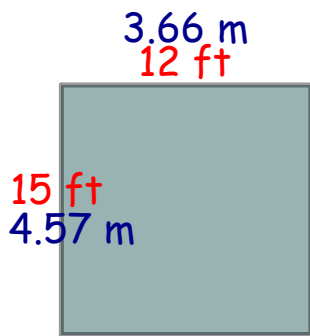


Hint:

Convert the ft to m pronto!!

b) How much will it cost?

Giselle would like to replace the carpet in her living room. She used her imperial tape measure to measure the room, and the dimensions were 12 ft by 15 ft. When she went to the carpet store, she found the price of the carpet was \$24.99/m² (taxes included). She cannot order less than a full square metre of carpet.



a) What is the total amount of carpeting needed?

Hint:
Convert the ft to m pronto!!

$$12 \times \frac{1}{3.2808} = 3.66 \text{ m}$$

$$15 \times \frac{1}{3.2808} = 4.57 \text{ m}$$

$$A = L \times W$$

$$A = 3.66 \times 4.57$$

$$A = 16.73 \text{ m}^2$$

$$17 \text{ m}^2$$

b) How much will it cost?

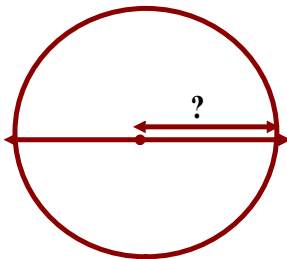
$$17 \times \$24.99$$

$$\$424.83$$

Doug is the cost estimator for a landscape company. He has to calculate the amount of material needed to construct a circular outdoor patio built from paving stones. **The diameter is 13 m.** One bundle of paving stones covers **116 ft²**. Doug has **ordered 11 bundles** of paving stones. Did he order enough to cover the whole area?



When complete, the patio will look similar to this design.



$$\begin{aligned}
 \text{Area} &= (3.14)r^2 \\
 &= (3.14)(21.33)^2 \\
 &= (3.14)(454.97) \\
 &= 1428.61
 \end{aligned}$$

Convert

$$\begin{array}{r}
 13 \text{ x } \frac{\text{feet}}{\text{meters}} \\
 13 \text{ x } \frac{3.2808}{1} \\
 \hline
 42.65 \\
 \div 2
 \end{array}$$

Number of bundles

$$\begin{aligned}
 &= 1428.61 / 116 \\
 &= 12.32
 \end{aligned}$$

No!

At Sandspit in PEI a child purchases a bracelet for the park. There are two different prices for bracelets. If you are **36 inches or less** the price for a day bracelet is **\$20.00**. If you are **more than 36 inches** the price is **\$24.99**. If the child is 104 cm, which bracelet should he purchase?

Check out page 159.

