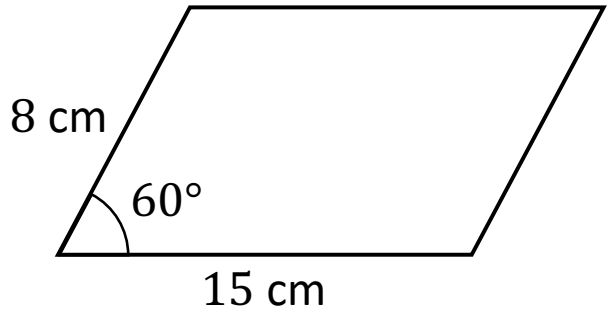
Trigonometry with…

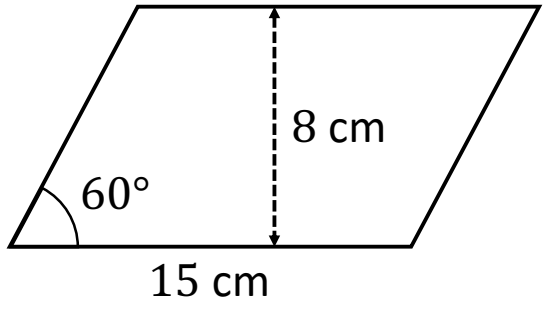
Area

Find the parallelogram's area.



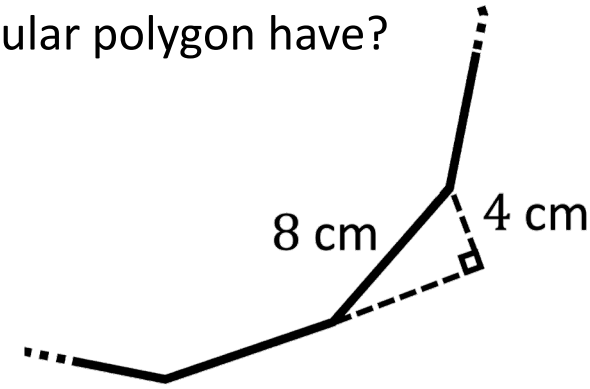
Perimeter

Find the parallelogram's perimeter.



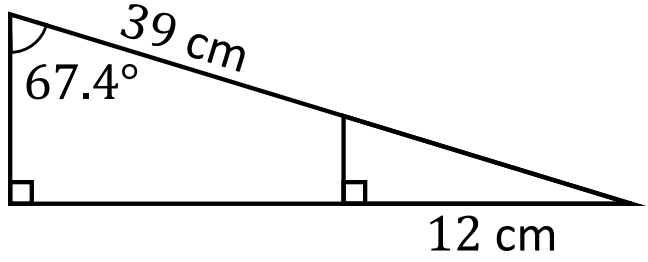
Angles in Polygons

How many sides does the regular polygon have?



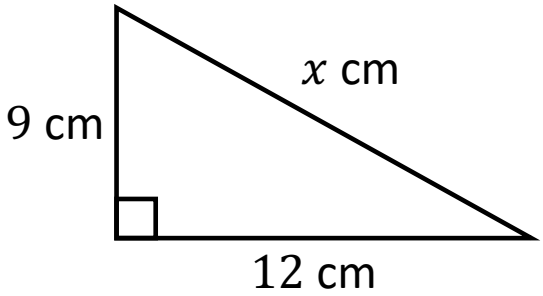
Similar Shapes

Find the area of the big triangle.



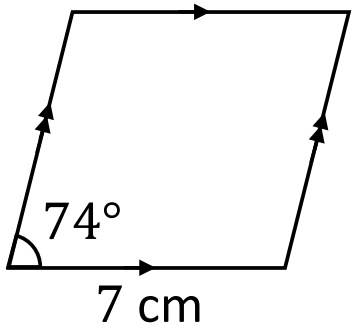
Pythagoras

Find x using two different methods.



Quadrilaterals

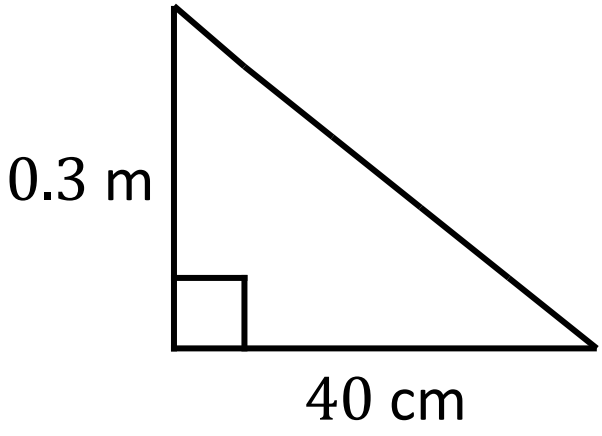
This shape has area 47.1 cm^2. Show that it is a rhombus.



Pythagoras with…

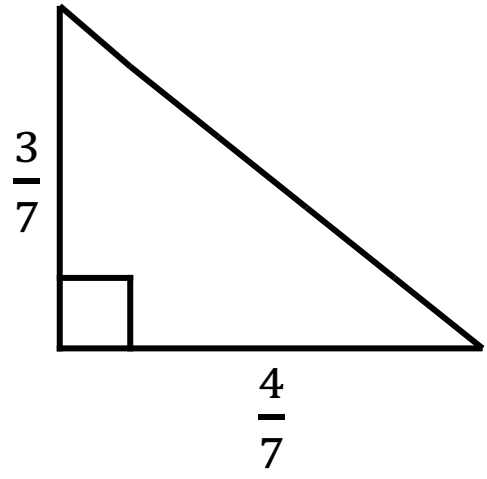
Unit Conversions

Find the hypotenuse.



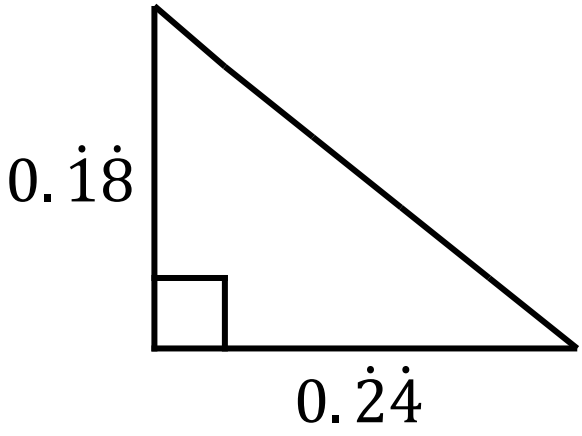
Fractions

Find the hypotenuse.



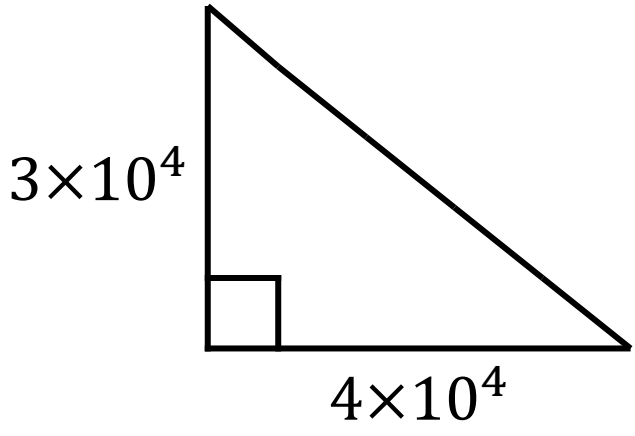
Recurring Decimals

Find the hypotenuse.



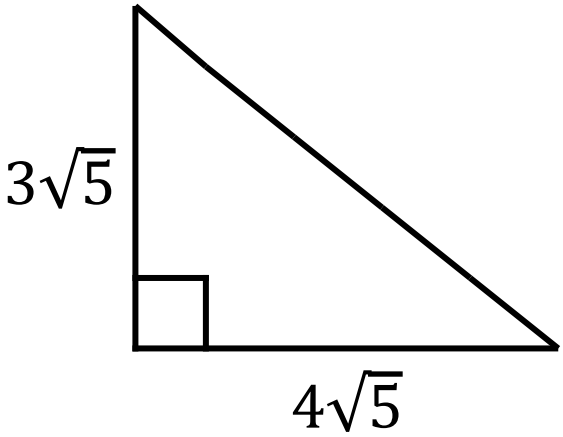
Standard Form

Find the hypotenuse.



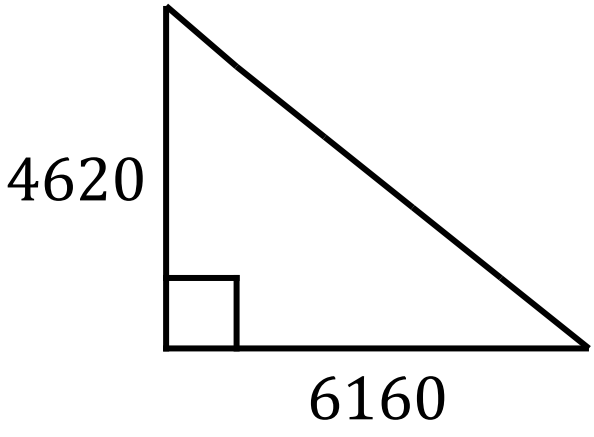
Surds

Find the hypotenuse.



Prime Factorisation

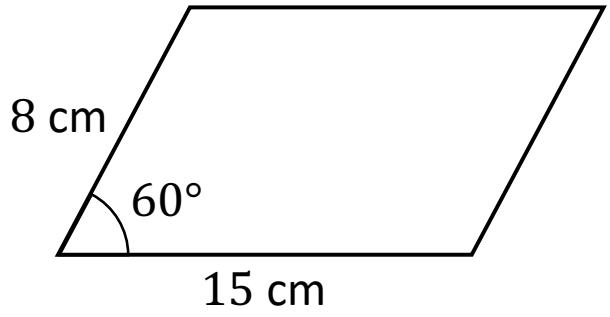
Find the hypotenuse.



Trigonometry with…

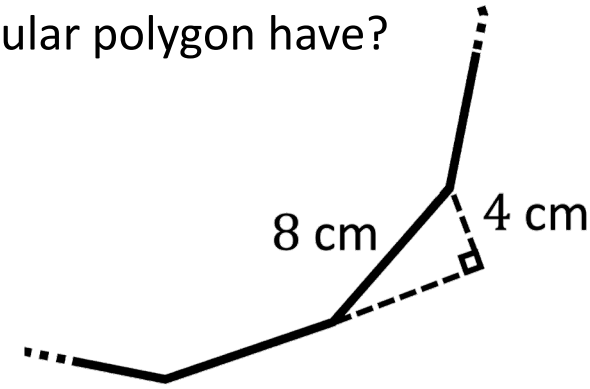
Area

Find the parallelogram's area.



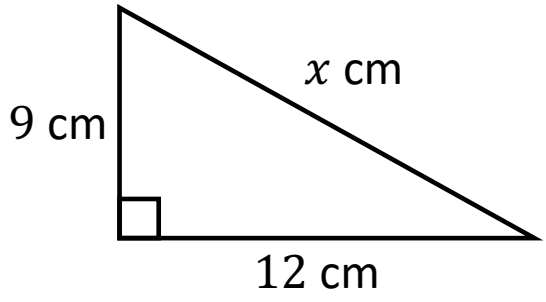
Angles in Polygons

How many sides does the regular polygon have?



Pythagoras

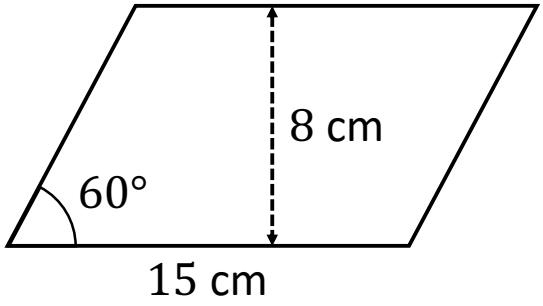
Find x using two different methods.



Trigonometry with…

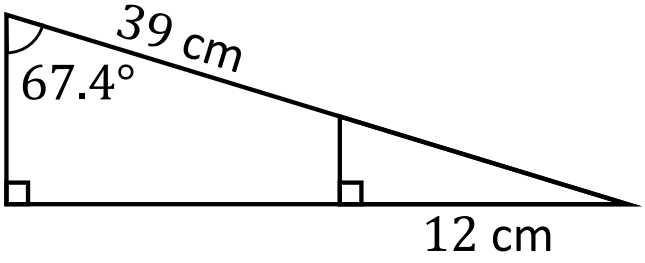
Perimeter

Find the parallelogram's perimeter.



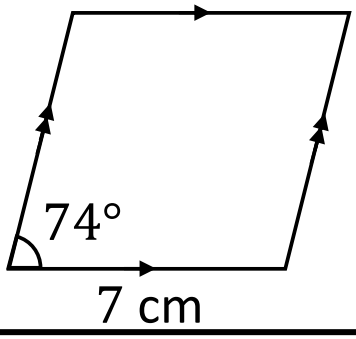
Similar Shapes

Find the area of the big triangle.



Quadrilaterals

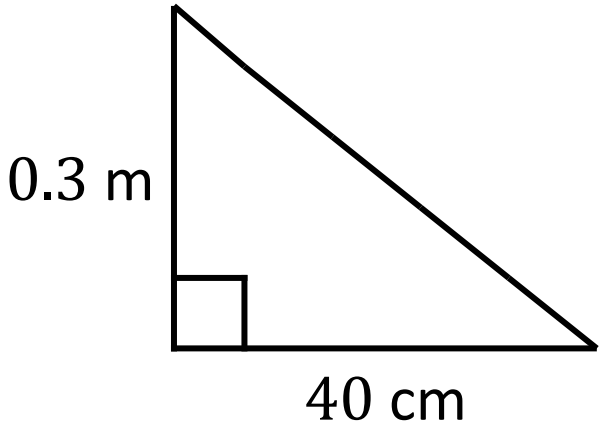
This shape has area $47.1\ \text{cm}^2$.
Show that it is a rhombus.



Pythagoras with…

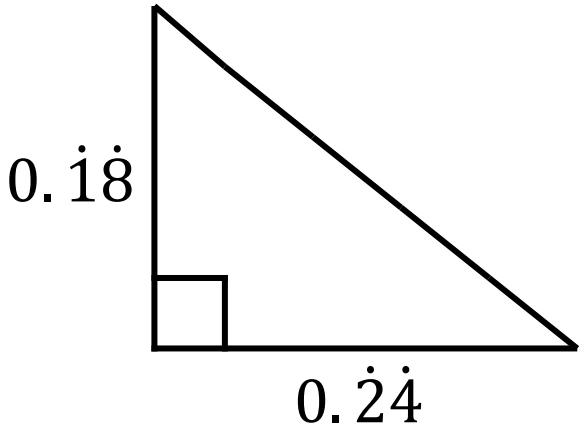
Unit Conversions

Find the hypotenuse.



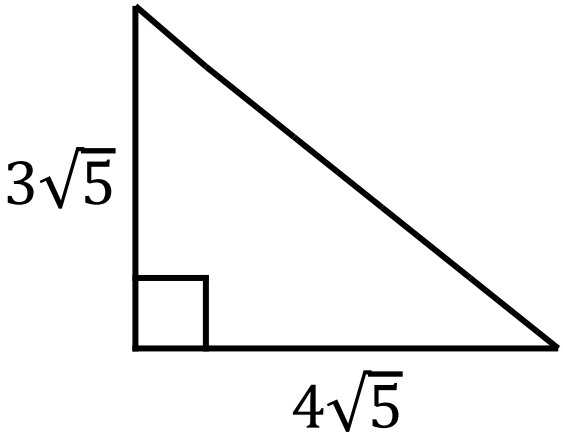
Recurring Decimals

Find the hypotenuse.



Surds

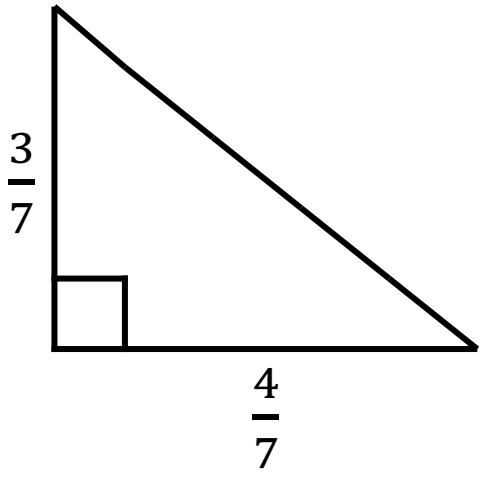
Find the hypotenuse.



Pythagoras with…

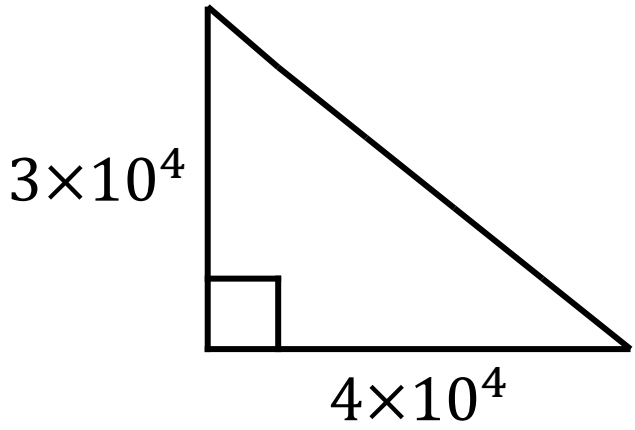
Fractions

Find the hypotenuse.



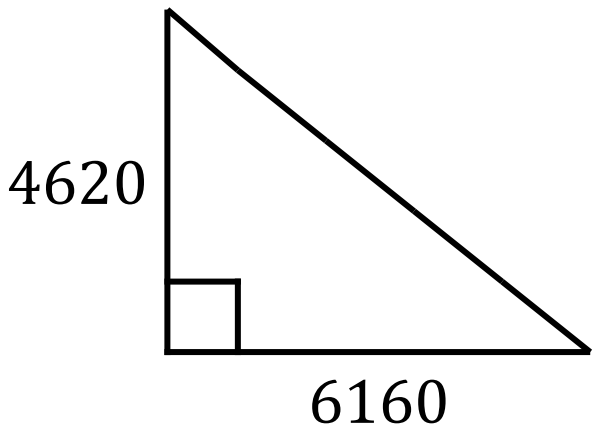
Standard Form

Find the hypotenuse.



Prime Factorisation

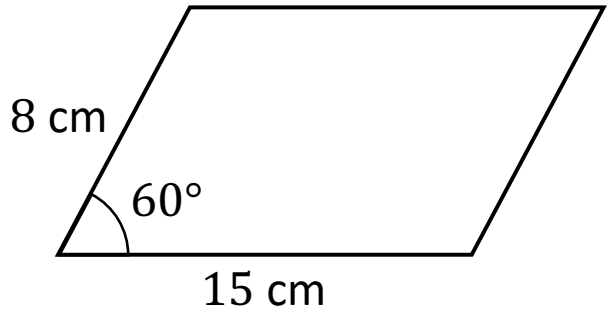
Find the hypotenuse.



Trigonometry with…

Area

Find the parallelogram's area.



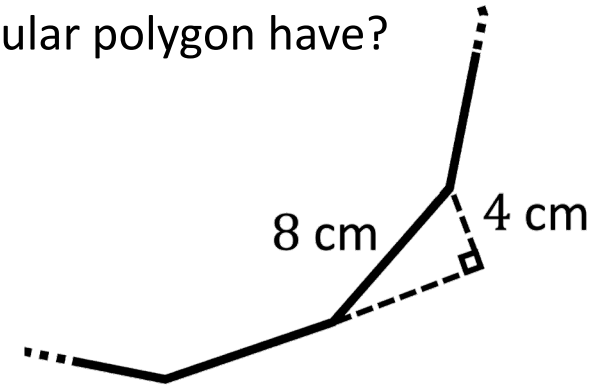
$103.9\ \text{cm}^2$

or

$60\sqrt{3}\ \text{cm}^2$

Angles in Polygons

How many sides does the regular polygon have?

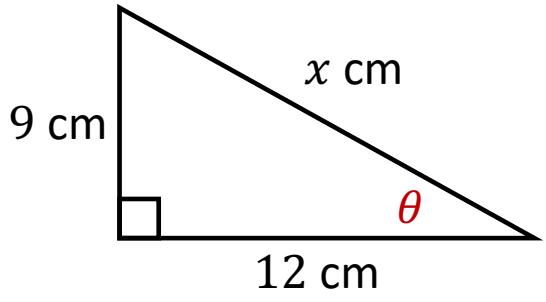


Ext. angle $= 30°$

$$n = \frac{360}{30} = 12$$

Pythagoras

Find x using two different methods.



e.g. $\theta = \tan^{-1}\left(\frac{9}{12}\right) = 36.9°$

$$x = \frac{9}{\sin(36.9)} = 15\ \text{cm}$$

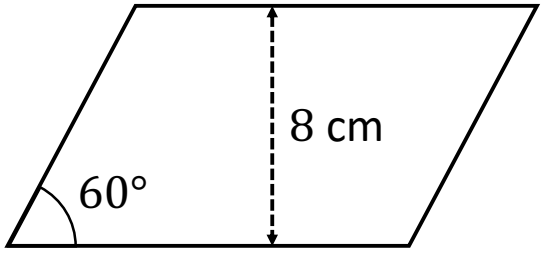
and

$$x = \sqrt{12^2 + 9^2} = 15\ \text{cm}$$

Trigonometry with...

Perimeter

Find the parallelogram's perimeter.



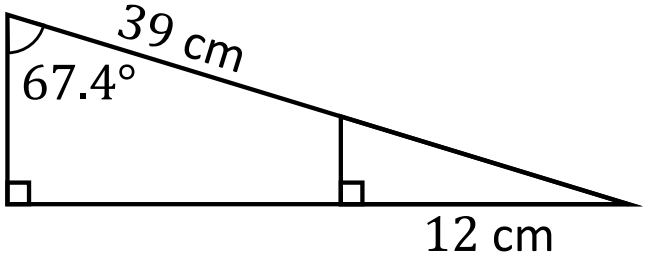
48.5 cm

or

$\frac{32}{3}\sqrt{3} + 30$ cm

Similar Shapes

Find the area of the big triangle.

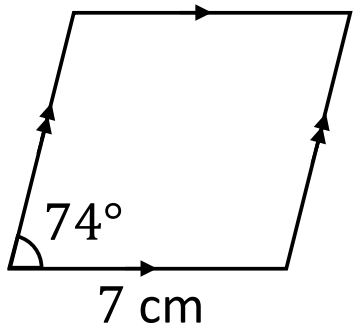


s.f. $= 4$

Area $= 480$ cm^2

Quadrilaterals

This shape has area 47.1 cm^2. Show that it is a rhombus.



Height $= \frac{47.1}{7} = 6.73$ cm.

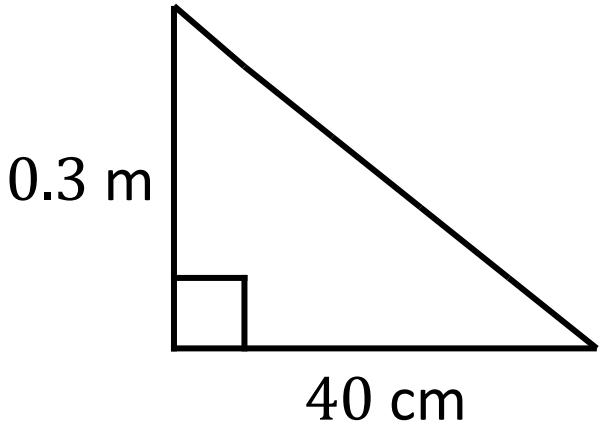
Left side $= \frac{6.73}{\sin(74)} = 7$ cm.

All four sides the same length, so it is a rhombus.

Pythagoras with…

Unit Conversions

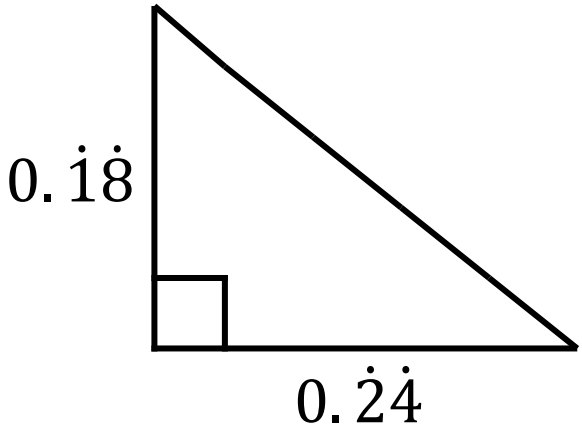
Find the hypotenuse.



$h = 50$ cm

Recurring Decimals

Find the hypotenuse.



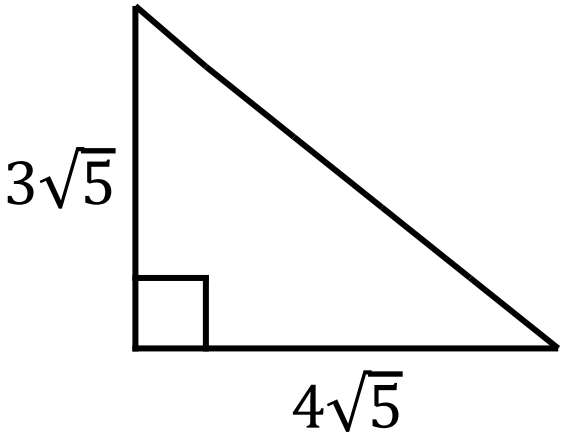
$$0.\dot{1}\dot{8} = \frac{18}{99} = \frac{2}{33} \times 3$$

$$0.\dot{2}\dot{4} = \frac{24}{99} = \frac{2}{33} \times 4$$

$$h = \frac{2}{33} \times 5 = \frac{10}{33} = 0.\dot{3}\dot{0}$$

Surds

Find the hypotenuse.

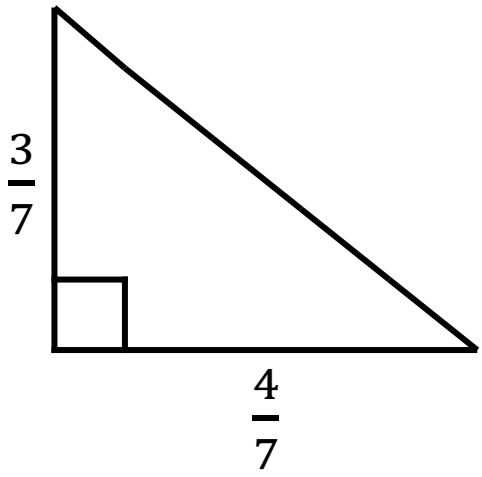


$h = 5\sqrt{5}$

Pythagoras with...

Fractions

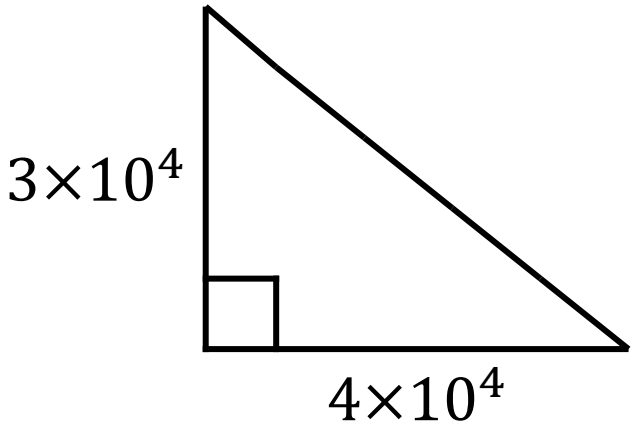
Find the hypotenuse.



$h = \frac{5}{7}$ cm

Standard Form

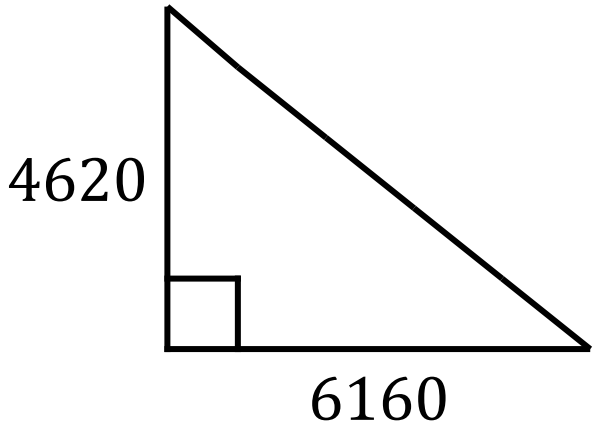
Find the hypotenuse.



$h = 5\times10^4$ cm

Prime Factorisation

Find the hypotenuse.



$4620 = 2^2\times3\times5\times7\times11$
$= 1540\times3$

$6160 = 2^4\times5\times7\times11$
$= 1540\times4$

$h = 1540\times5 = 7700$