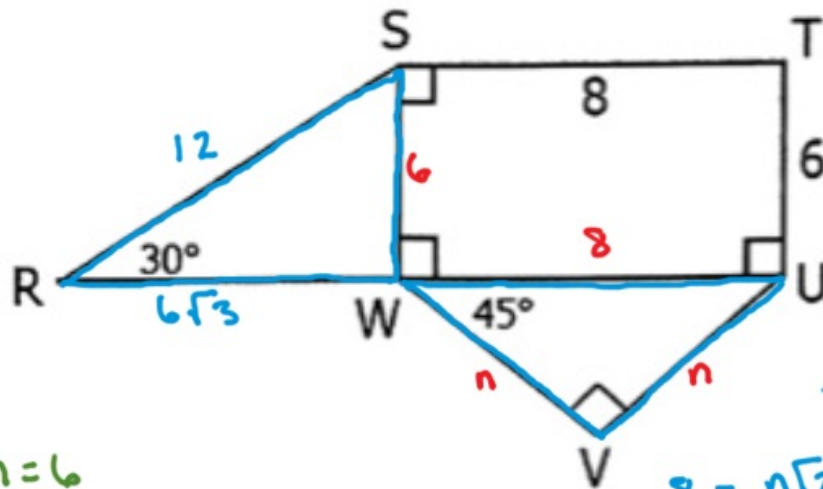


yes

Special Right Triangles.

Find the missing side lengths of hexagon RSTUVW.  
Find the perimeter.



$n = 6$

ST = 8

TU = 6

VU =  $4\sqrt{2} = 5.66$

WV =  $4\sqrt{2} = 5.66$

RW =  $6\sqrt{3} = 10.39$

RS = 12

Total Perimeter:

47.71

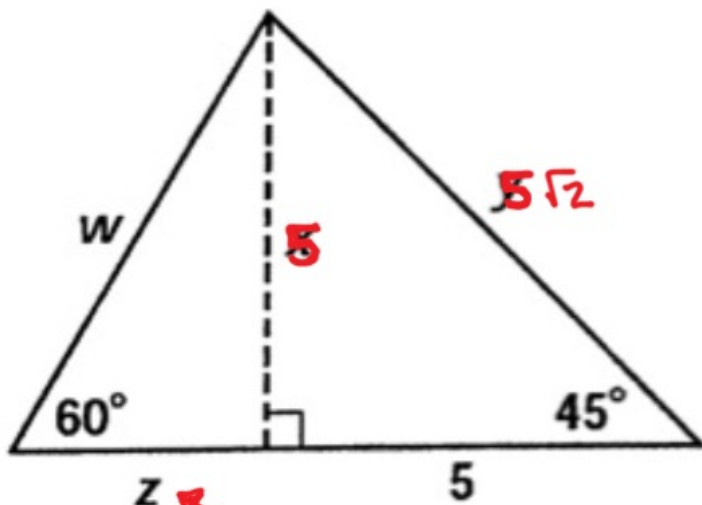
$8 = \frac{n\sqrt{2}}{\sqrt{2}}$

$n = \frac{8}{\sqrt{2}} \cdot \sqrt{2} = \frac{8\sqrt{2}}{2} = 4\sqrt{2}$

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Find the variables w, x, y, z. Leave all answers in simplest radical form.



$$w = \frac{10\sqrt{3}}{3}$$

$$x = 5$$

$$y = \frac{5\sqrt{2}}{3}$$

$$z = \frac{5\sqrt{3}}{3}$$

$$\frac{n\sqrt{3}}{\sqrt{3}} = \frac{5}{\sqrt{3}}$$

$$n = \frac{5}{\sqrt{3}} \cdot \sqrt{3} = \frac{5\sqrt{3}}{3}$$


$$w = (z) \left( \frac{5\sqrt{3}}{3} \right) = \frac{10\sqrt{3}}{3}$$


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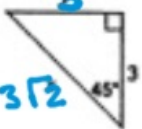



### Special Right Triangles.


Find the missing side lengths. Leave your answers as radicals in simplest form.


1)   $\frac{2\sqrt{3}}{\sqrt{3}} = \frac{n\sqrt{3}}{\sqrt{3}}$   
 $2 = n$

2)   $n = 2$

3)   $n = 3$

4)   $2\sqrt{2} = n$   
 $2\sqrt{2} \cdot \sqrt{2} = 2\sqrt{4} = 2 \cdot 2 = 4$

5) 

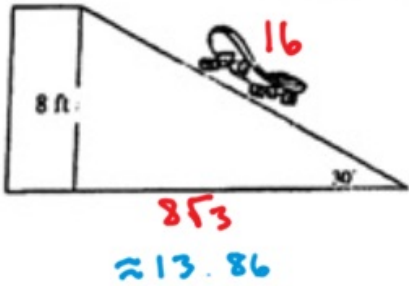
6)   $\frac{2n}{2} = \frac{2}{2}$   
 $n = 1$   
 $y = 1$

$$\frac{n\sqrt{2}}{\sqrt{2}} = \frac{2\sqrt{5}}{\sqrt{2}}$$

$$n = \frac{2\sqrt{5} \cdot \sqrt{2}}{\sqrt{2} \cdot \sqrt{2}} = \frac{2\sqrt{10}}{2} = \sqrt{10}$$

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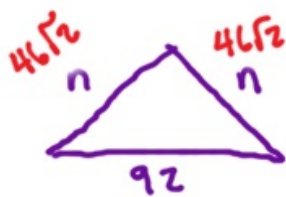


Jeremy is going to show off his skateboarding ability to his Geometry class. He has a skateboard ramp must be set up to rise from the ground at  $30^\circ$ . If the height from the ground to the platform is 8 feet, how far is the ramp to the platform? How long is the ramp up to the top of the platform?

Decimals OK to two places

$n = 8$

Lorena and Karla are creating an art project in the shape of a right triangle. They have a 92 cm-long piece of wood, which is to be used for the hypotenuse. The two legs of the triangular support are of equal length. Approximately how many more centimeters of wood do they need to complete the support?



$$\frac{n\sqrt{2}}{\sqrt{2}} = \frac{92}{\sqrt{2}}$$

$$n = \frac{92 \cdot \sqrt{2}}{\sqrt{2} \cdot \sqrt{2}} = \frac{92\sqrt{2}}{2} = 46\sqrt{2} \cdot 2 = \boxed{92\sqrt{2}}$$

$$\approx 130.1$$

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