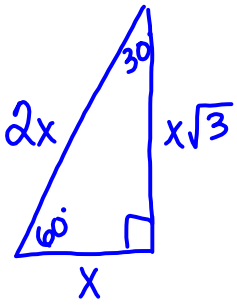
Questions on Lesson 3.4?

We will be taking our content mastery quiz soon!

Questions on Special Right Triangles Worksheet?



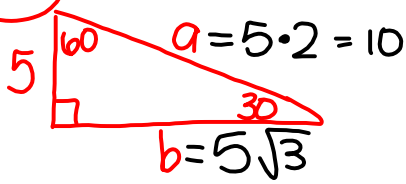
shorter leg → hypotenuse
• by 2

hypotenuse → shorter leg
÷ by 2

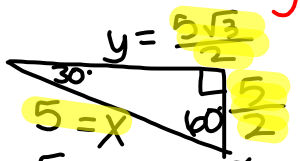
shorter leg → longer leg
• by √3

longer leg → shorter leg
÷ by √3

(20)



(22)



$x = \frac{5}{2} \cdot \frac{2}{1} = \frac{5 \cdot 2}{2 \cdot 1} = 5$

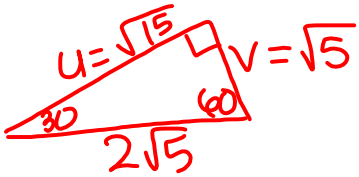
$y = \frac{5}{2} \cdot \frac{\sqrt{3}}{1} = \frac{5\sqrt{3}}{2}$

(21)

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

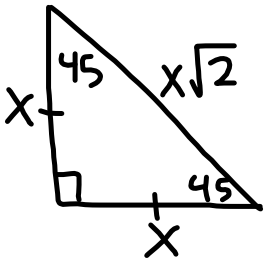
$m = \sqrt{3} \cdot \sqrt{3} = \sqrt{9} = 3$

(25)



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

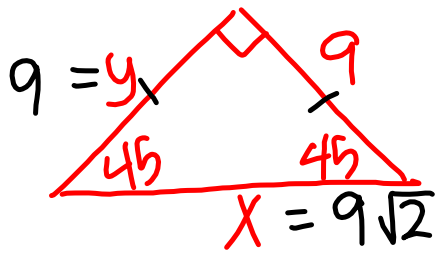
$u = \sqrt{5} \cdot \sqrt{3} = \sqrt{15}$



leg → hypotenuse
• by $\sqrt{2}$

hypotenuse → leg
÷ by $\sqrt{2}$

13



Simplify with your group.

$\sqrt{810}$

$\sqrt{112}$

$\sqrt{27}$

$\sqrt{800}$

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Practice on a piece of paper.

a. $\sqrt{96}$

b. $\sqrt{200}$

c. $\sqrt{392}$

d. $\sqrt{175}$

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Simplify with your group.

$$\frac{4}{\sqrt{5}} \cdot \frac{\sqrt{5}}{\sqrt{5}} = \frac{4\sqrt{5}}{5}$$

$$\frac{2}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{2\sqrt{3}}{\sqrt{9}} = \frac{2\sqrt{3}}{3}$$

$$\frac{14}{\sqrt{2}} = \frac{14\sqrt{2}}{2} = 7\sqrt{2}$$

$$\frac{12}{\sqrt{6}}$$

Practice on a piece of paper.

a. $\frac{1}{\sqrt{2}}$

b. $\frac{8}{\sqrt{7}}$

c. $\frac{4}{\sqrt{6}}$

d. $\frac{4}{\sqrt{10}}$

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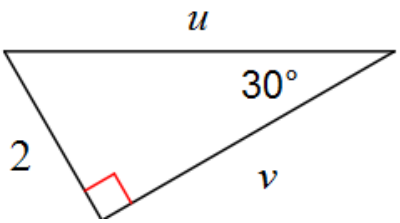
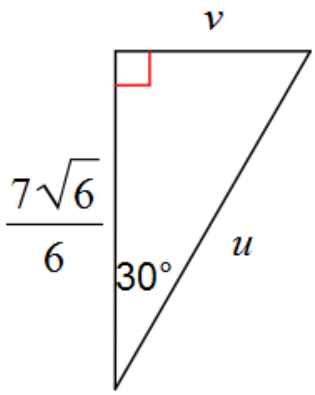
Practice on a piece of paper.

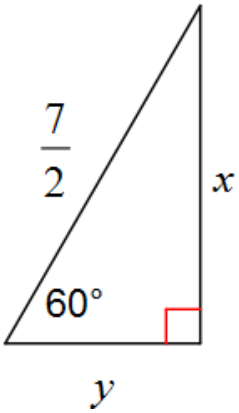
a.



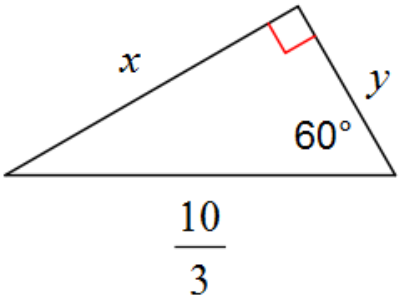
b.



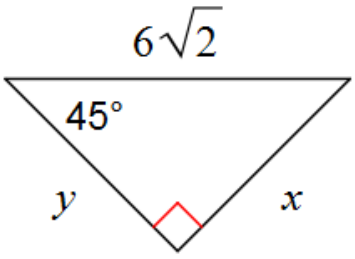
c.



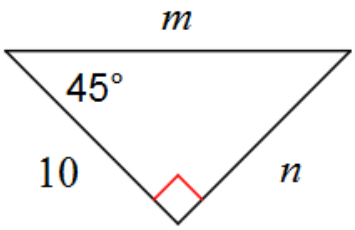
d.



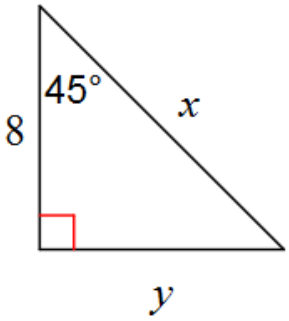
e.



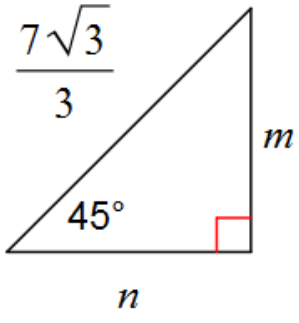
f.



g.



h.



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What does it mean for a radical to be in "simplest form?"

Radicand: $\sqrt{}$

-There are no perfect square factors in the radicand.

-There are no radicands in the denominator of a fraction.

Perfect squares:

~~1~~,4,9,16,25,36,49,64,81,100,121,144,...

$$\frac{4}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{4\sqrt{3}}{\sqrt{3 \cdot 3}}$$

$$= \frac{4\sqrt{3}}{\sqrt{9}} = \boxed{\frac{4\sqrt{3}}{3}}$$

$$\frac{1}{2} \cdot \frac{2}{2} = \frac{2}{4}$$

$\uparrow$

1

$$\frac{7}{\sqrt{5}} \cdot \frac{\sqrt{5}}{\sqrt{5}} = \frac{7\sqrt{5}}{\sqrt{5 \cdot 5}} = \frac{7\sqrt{5}}{\sqrt{25}} = \boxed{\frac{7\sqrt{5}}{5}}$$