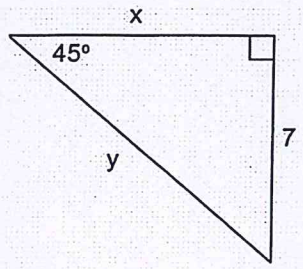
Practice #1 Special Right Triangles Spring 2020

Find the EXACT value of each variable in each Special Right Triangle. Give answers in simplified radical form. Make sure all denominators are rationalized.

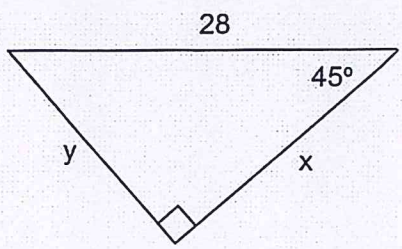
1.



$x =$

$y =$

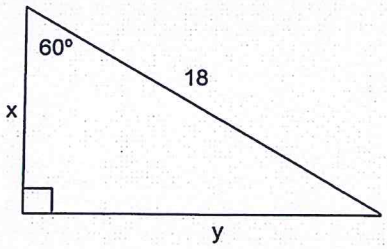
2.



$x =$

$y =$

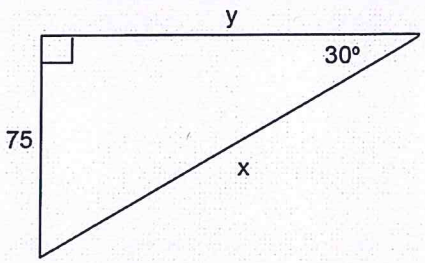
3.



$x =$

$y =$

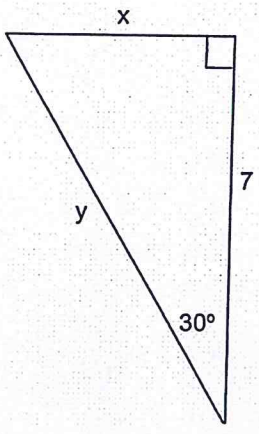
4.



$x =$

$y =$

5.

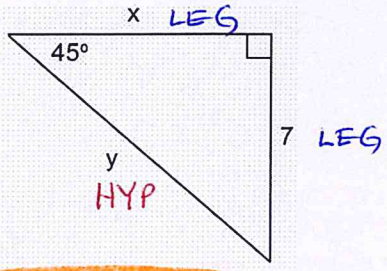


$x =$ $y =$

Practice #1 Special Right Triangles Spring 2020 ANSWERS

Find the EXACT value of each variable in each Special Right Triangle. Give answers in simplified radical form. Make sure all denominators are rationalized.

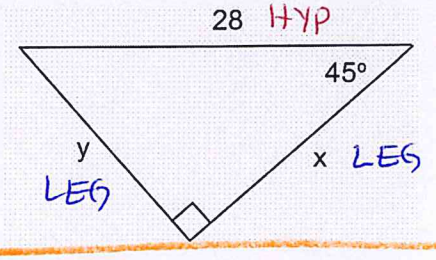
1. 45-45-90 Δ



$x =$ ~~7~~ 7

$y = 7\sqrt{2}$

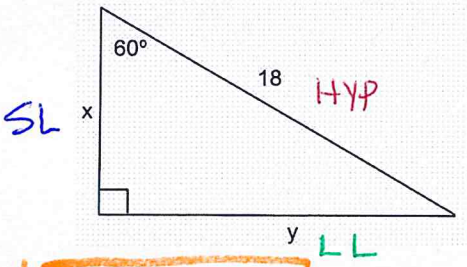
2. 45-45-90 Δ



$x = \frac{28}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{28\sqrt{2}}{2} = 14\sqrt{2}$

$y = 14\sqrt{2}$

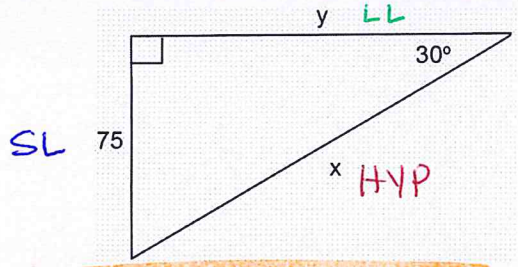
3. 30-60-90 Δ



$x = 18 \div 2 = 9$

$y = 9\sqrt{3}$

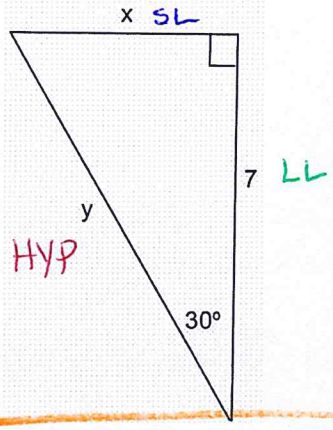
4. 30-60-90 Δ



$x = 75 \cdot 2 = 150$

$y = 75\sqrt{3}$

5. 30-60-90 Δ



$x = \frac{7}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{7\sqrt{3}}{3}$ $y = \frac{7\sqrt{3}}{3} \cdot 2 = \frac{14\sqrt{3}}{3}$