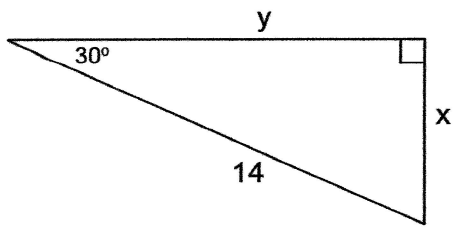
Bellwork Alg 2 Monday, April 27, 2020

Use the relationships in the two Special Right Triangles to find the EXACT value of x and y in each triangle.

NOTE:

- EXACT answers means no rounded decimals - give answers in simplififed radical form and rationalize denominators if necessary.
- Don't use Sin, Cos, or Tan if the directions say to use the relationships in the Special Right Triangles!

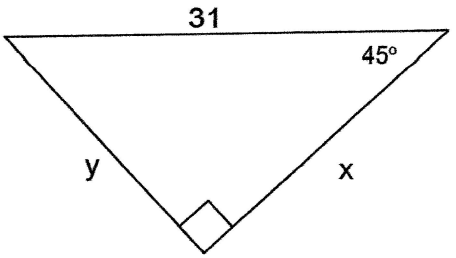
1.



$x =$

$y =$

2.



$x =$

$y =$

Bellwork Alg 2 Monday, April 27, 2020 Answers

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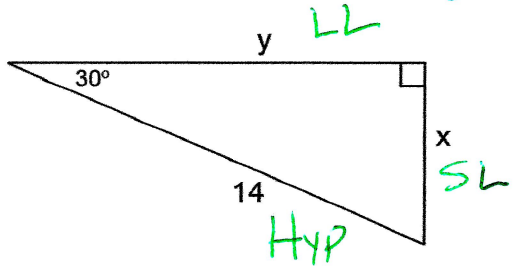
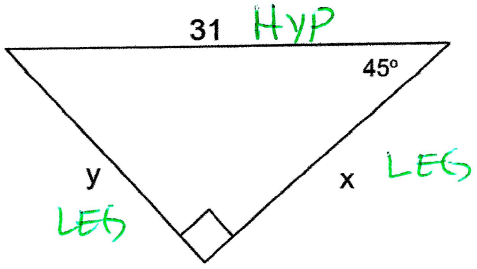
1. 30-60-90 Δ



$x = SL = \frac{H}{2} = \frac{14}{2} = 7$

$y = LL = SL \cdot \sqrt{3} = 7\sqrt{3}$

2. 45-45-90 Δ



$x =$ } Legs are $\cong$ $\quad leg = \frac{hyp}{\sqrt{2}}$

$y =$ } $= \frac{31}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$

$x = y = \frac{31\sqrt{2}}{2}$