

Name: Answer Key

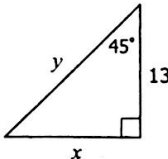
Unit 8: Right Triangles & Trigonometry

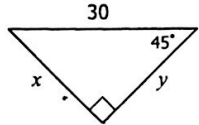
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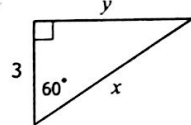
Homework 2: Special Right Triangles

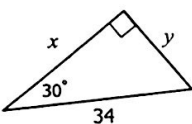
**\*\* This is a 2-page document! \*\***

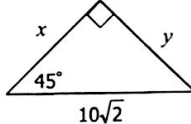
**Directions:** Find the value of each variable.

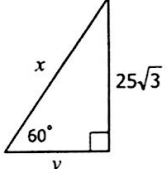
1.   
 $x = \frac{13}{\sqrt{2}}$   
 $y = 13\sqrt{2}$

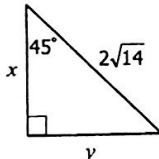
2.   
 $x = \frac{30}{\sqrt{2}}$   
 $y = \frac{30}{\sqrt{2}}$

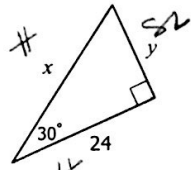
3.   
 $x = \frac{6}{3\sqrt{3}}$   
 $y = 3\sqrt{3}$

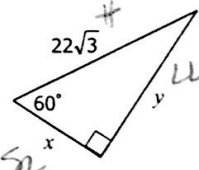
4.   
 $x = \frac{17\sqrt{3}}{2}$   
 $y = 17$

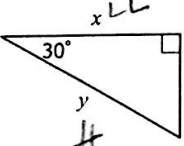
5.   
 $x = 10$   
 $y = 10$

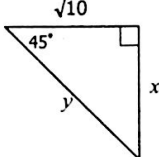
6.   
 $x = \frac{50}{25}$   
 $y = 25$

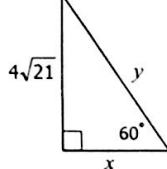
7.   
 $x = \frac{2\sqrt{14}}{\sqrt{2}}$   
 $y = 2\sqrt{7}$

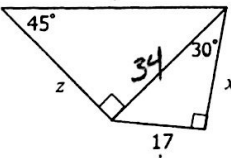
8.   
 $x = \frac{48}{\sqrt{3}}$   
 $y = \frac{24}{\sqrt{3}}$

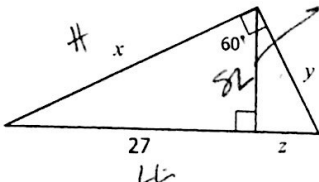
9.   
 $x = \frac{11\sqrt{3}}{11\sqrt{3} \cdot \sqrt{3} = 11 \cdot 3 = 33}$   
 $y = 33$

10.   
 $\sqrt{6} \cdot \sqrt{3} = \sqrt{18} x = \frac{3\sqrt{2}}{2}$   
 $y = 2\sqrt{6}$

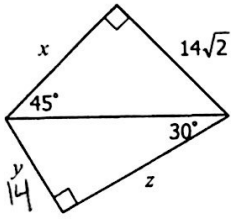
11.   
 $x = \frac{\sqrt{10}}{2}$   
 $y = 2\sqrt{5}$

12.   
 $x = \frac{4\sqrt{7}}{8\sqrt{7}}$   
 $y = 8\sqrt{7}$

13.   
 $x = 17\sqrt{3}$   
 $y = 34\sqrt{2}$   
 $z = 34$

14.   
 $x = \frac{54}{\sqrt{3}}$   
 $y = 18$   
 $z = 9$

15.

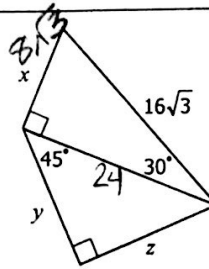


$$x = \frac{14\sqrt{2}}{1}$$

$$y = \frac{14}{1}$$

$$z = \frac{14\sqrt{3}}{1}$$

16.

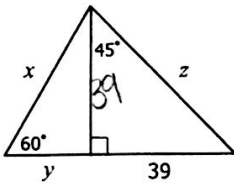


$$x = \frac{8\sqrt{3}}{1}$$

$$y = \frac{24/\sqrt{2}}{1}$$

$$z = \frac{24/\sqrt{2}}{1}$$

17.

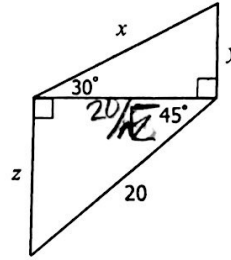


$$x = \frac{78/\sqrt{3}}{1}$$

$$y = \frac{39/\sqrt{3}}{1}$$

$$z = \frac{39\sqrt{2}}{1}$$

18.

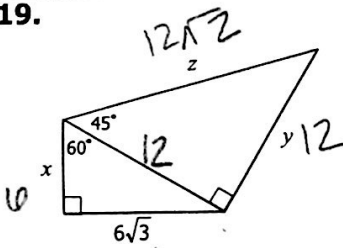


$$x = \frac{40/\sqrt{10}}{1}$$

$$y = \frac{20/\sqrt{10}}{1}$$

$$z = \frac{20/\sqrt{2}}{1}$$

19.

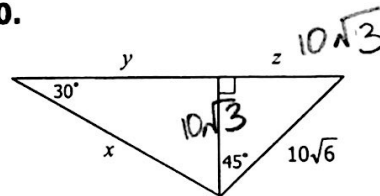


$$x = \frac{6}{1}$$

$$y = \frac{12}{1}$$

$$z = \frac{12\sqrt{2}}{1}$$

20.



$$10\sqrt{3} \cdot \sqrt{3} = 10\sqrt{9} = 10(3) = 30$$

$$x = \frac{20\sqrt{3}}{1}$$

$$y = \frac{30}{1}$$

$$z = \frac{10\sqrt{3}}{1}$$