

Find the missing side lengths. Use simple radical form when needed.

1. $a = 12, c = 16$

2. $a = 14, b = 16$

3. $a = 8, c = 17$

4. $b = 13, c = 15$

5. $a = 2\sqrt{3}, b = 4$

6. $b = 11, c = \sqrt{170}$

Find the third number of the Pythagorean Triple. Use an equation with a variable...no guess and check.

7. 21 & 29

8. 10 & 24

Three potential side lengths are given. a) Use the Triangle Inequality to show the 3 sides actually do make a triangle.
b) Determine if the triangle is acute, obtuse, or right.

9. 9cm, 10cm, 12cm

10. 12m, 16m, 20m

11. 5", 6", 10"

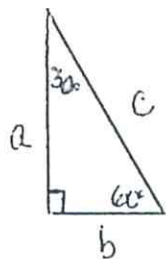
Two sides of a triangle are given. a) Find all possible whole number lengths for the 3rd side.

b) Using the results of part a, find a side that makes an acute triangle. Show it works.

c) Using the results of part a, find a side that makes an obtuse triangle. Show it works.

12. 6, 7

13. 9, 12



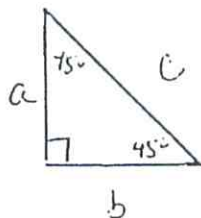
Find the 2 missing sides of the $30^\circ - 60^\circ - 90^\circ \Delta$ using the given info.

14. $c = 40$

15. $a = 6\sqrt{3}$

16. $b = 9$

17. $a = 5$



Find the 2 missing sides of the $45^\circ - 45^\circ - 90^\circ \Delta$ using the given info.

18. $a = 6$

19. $b = 8\sqrt{2}$

20. $c = 50$

21. $c = 11\sqrt{2}$

22. Use the diagram to find the $\sin A$, $\cos A$, and $\tan A$.

