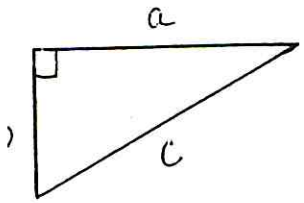
Geometry
Studyguide for Sections 8.1 – 8.4 SHOW ALL WORK



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.

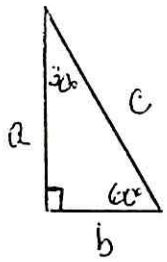
7. 21 & 29
8. 10 & 24

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"

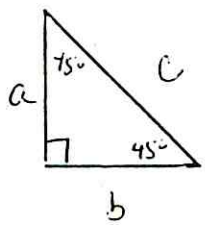
Two sides of a triangle are given. a) Find all possible whole number lengths for the 3rd side.
b) Using the results of part a, find a side that makes an acute triangle. Show it works.
c) Using the results of part a, find a side that makes an obtuse triangle. Show it works.

12. 6, 7
13. 9, 12



Find the 2 missing sides of the $30° - 60° - 90°\Delta$ 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 $45° - 45° - 90°\Delta$ 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.