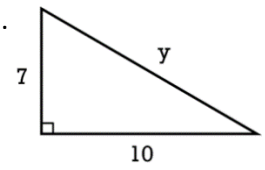
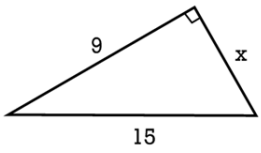
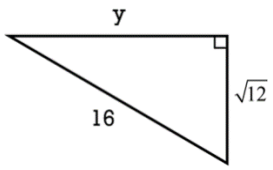
Name_____ Geometry 8.1-8.2 Study Guide

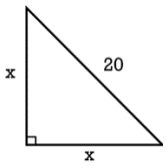
**Lesson 8-1**

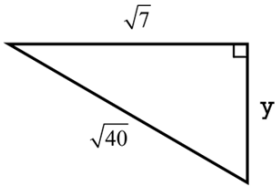
**Find the missing side length of each triangle. Round your answers to the nearest tenth. Do the lengths form a Pythagorean triple? Answer yes or no.**

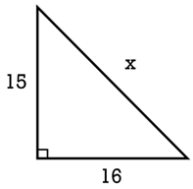
1. 


2. 


3. 


4. 


5. 


6. 


**The lengths of the sides of a triangle are given. Classify each triangle as acute, right, or obtuse.**

7. 49, 168, 175

8. $\sqrt{13}, 10, 12$

9. 4, 5, 6

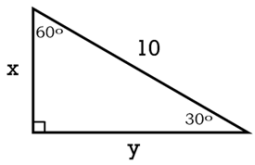
10. A square is drawn in a circle so the vertices touch the circle. If the radius if the circle is 15 cm, find the perimeter of the square.

11. A repair man leans an 18 $ft$ ladder against the side of a house. If the ladder hits the house at a height of 17 ft, how far from the house is the base of the ladder? Round to the nearest tenth.

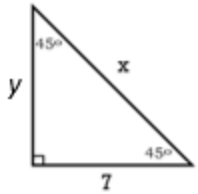
**Lesson 8-2**

**Use special right triangles formulas to find the missing side lengths in each triangle. Write your answers in simplest radical form.**

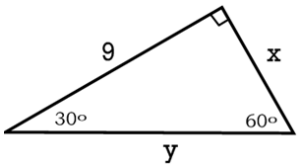
12. $x =$ ___ $y =$ ____



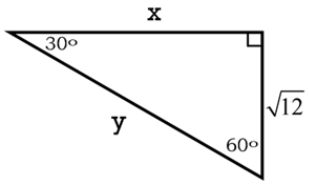

13. $x =$ ___ $y =$ ____



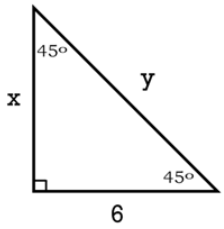

14. $x =$ ___ $y =$ ____



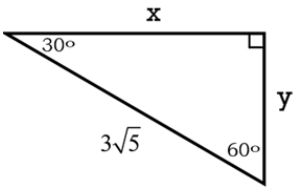
15. $x =$ ___ $y =$ ____



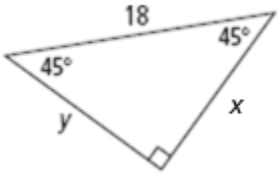

16. $x =$ ___ $y =$ ____



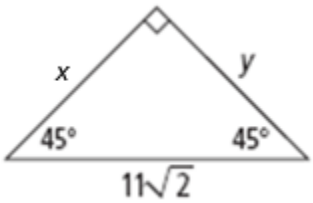

17. $x =$ ___ $y =$ ____



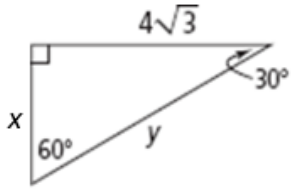

18. $x =$ ___ $y =$ ____



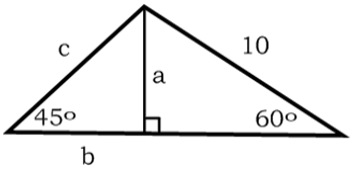

19. $x =$ ___ $y =$ ____



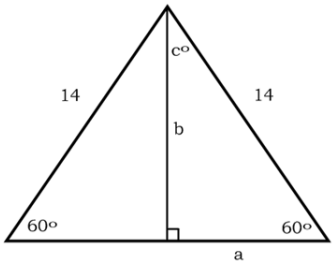

20. $x =$ ___ $y =$ ____



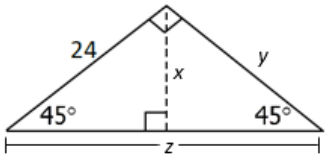

21. $a =$ ___ $b =$ ____ $c =$ ____



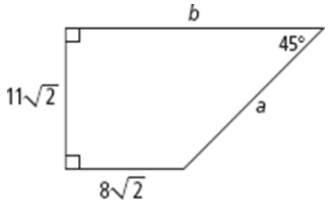

22. $a =$ ___ $b =$ ____ $c =$ ____



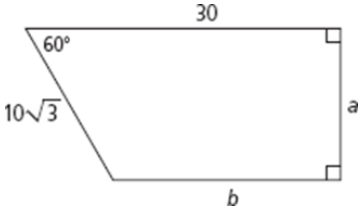

23. $x =$ ___ $y =$ ____ $z =$ ___




24. $a =$ ____ $b =$ ____




25. $a =$ ____ $b =$ ____




26. A baseball diamond is a square. The distance from base to base is 90 ft. To the nearest foot, how far is it from home plate to second base?

27. A ladder leaning against a wall makes a $60°$ angle with the ground. The base of the ladder is 3 m from the building. How high above the ground is the top of the ladder?