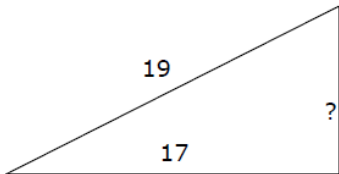


**NAME:**

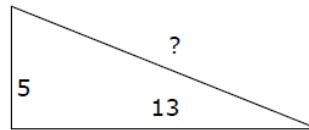
## PYTHAGOREAN THEOREM - WORKSHEET

For each triangle find the missing length. Round your answer to the nearest tenth. Then find the area and the perimeter.

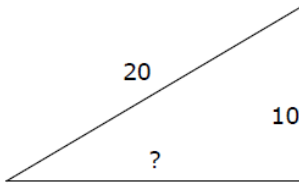
1.



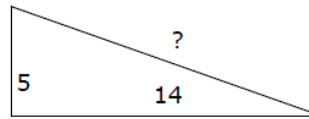
2.



3.



4.



For #5-9  $c$  is the hypotenuse of the right triangle ABC with sides  $a$ ,  $b$ ,  $c$

5.  $a = 12$  ;  $b = 5$  ;  $c =$  \_\_\_\_\_

6.  $a = 8$  ;  $b =$  \_\_\_\_\_ ;  $c = 10$

7.  $a = 15$  ;  $b =$  \_\_\_\_\_ ;  $c = 17$

8.  $a =$  \_\_\_\_\_ ;  $b = 40$  ;  $c = 50$

9.  $a =$  \_\_\_\_\_ ;  $b = 2$  ;  $c = 4$

10. Find a third number so that the three numbers form a right triangle:

i) 9 , 41

ii) 13 , 85

11. Ms. Green tells you that a right triangle has a hypotenuse of 13 and a leg of 5. She asks you to find the other leg of the triangle. What is your answer?

12. Two joggers run 8 miles north and then 5 miles west. What is the shortest distance, to the *nearest tenth* of a mile, they must travel to return to their starting point?

13. Oscar's dog house is shaped like a tent. The slanted sides are both 5 feet long and the bottom of the house is 6 feet across. What is the height of his dog house, in feet, at its tallest point?

14. To get from point A to point B you must avoid walking through a pond. To avoid the pond, you must walk 34 meters south and 41 meters east. To the *nearest meter*, how many meters would be saved if it were possible to walk through the pond?

15. A suitcase measures 24 inches long and the diagonal is 30 inches long. How much material is needed to cover one side of the suitcase?