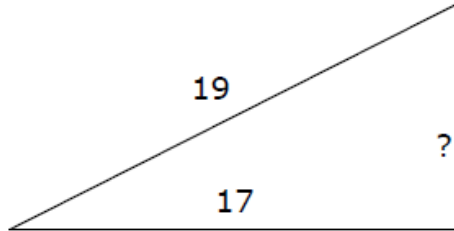


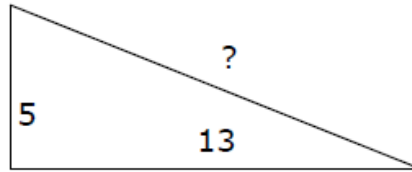
**NAME:**  
**PYTHAGOREAN THEOREM - WORKSHEET**

For each triangle find the missing length. Round your answer to the nearest tenth.

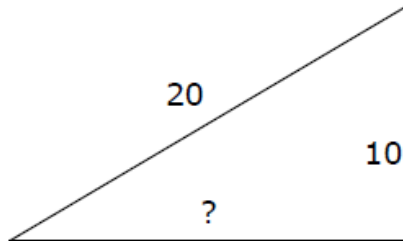
1.



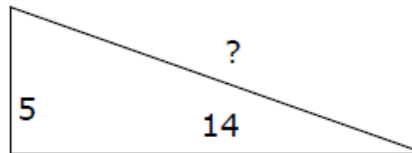
2.



3.



4.



For 5-8, side  $c$  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. Which of the following are measures of the sides of a right triangle? (there are multiple)

a) 3 - 4 - 5

b) 6 - 13 - 7

c) 5 - 2.5 - 8.5

d) 5.9 - 6.3 - 37.25

e) 5 - 13 - 12

f) 6.3 - 8.8 - 10.8

g) 1 - 1 - 2

h) 9 - 3 - 3

i) 10 - 8 - 6

10. Find two numbers, one larger than the two provided and one between the two provided, 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 millpond. 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 on water?
15. A suitcase measures 24 inches long and the diagonal is 30 inches long. How long is the other side?
16. The shape of a park's playset is a right isosceles triangle. If the hypotenuse measures 32 feet, to the nearest inch how long is each side?
17. The size of a TV screen is its diagonal measure. A theater screen TV has a length to height ratio of 16:9. If a 60 inch TV is to fit inside an entertainment center, what size cutout is required so the TV will fit?