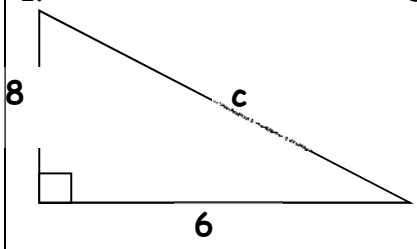
Name: _____ Date: _____

WS 1.1 - Pythagorean Theorem

$\frac{\quad}{16} + \frac{\quad}{4} = \frac{\quad}{20}$

Solve for each variable. Round each answer to the nearest hundredth. Show all work for credit.

1.



$c = \sqrt{a^2 + b^2}$

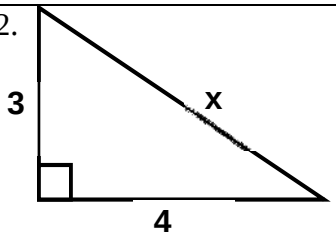
$= \sqrt{\_\_\_\_^2 + \_\_\_\_^2}$

$= \sqrt{\_\_\_\_ + \_\_\_\_}$

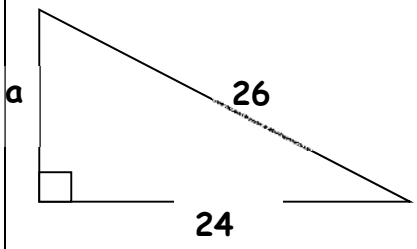
$= \sqrt{\_\_\_\_\_}$

$= \_\_\_\_\_$

2.



3.



$a = \sqrt{c^2 - b^2}$

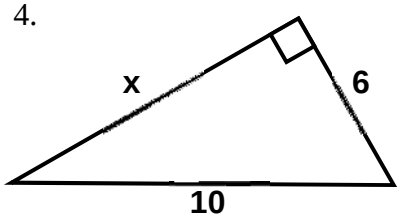
$= \sqrt{\_\_\_\_^2 - \_\_\_\_^2}$

$= \sqrt{\_\_\_\_ - \_\_\_\_}$

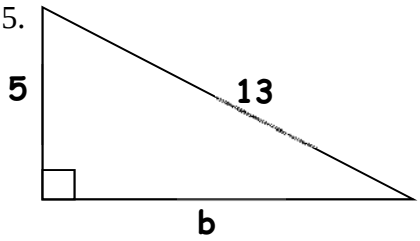
$= \sqrt{\_\_\_\_\_}$

$= \_\_\_\_\_$

4.



5.



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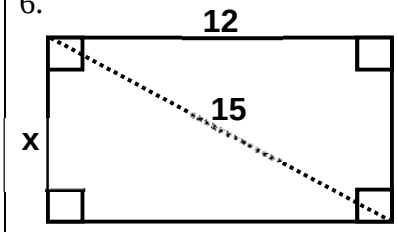
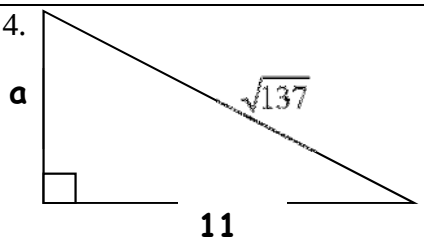
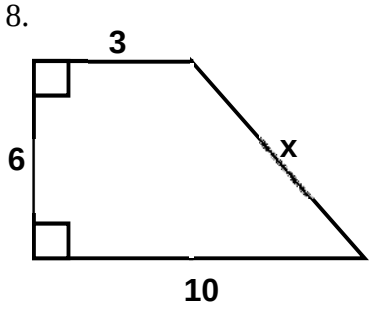


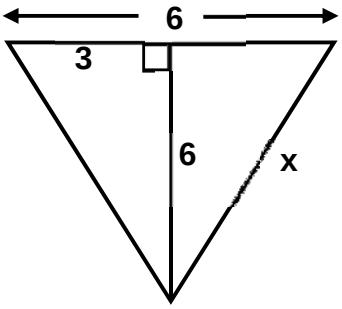
4.



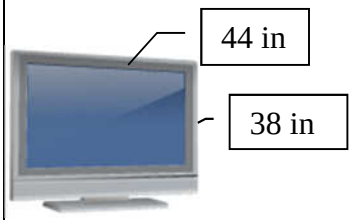
8.



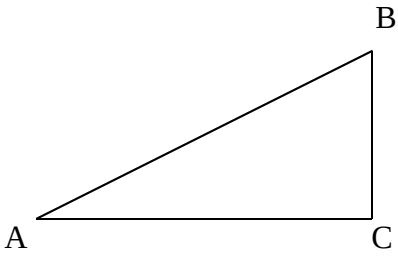
9. Solve for x, use one half of the triangle.



10. A Tv screen's size is described by the measure of its diagonal, typically in inches. What is the size of the TV screen shown below?

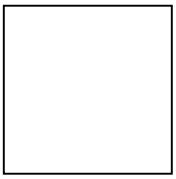


11. Find the length of AB when the coordinates of A are (4,7), and the coordinates of B are (16,12).

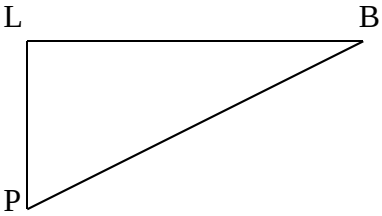


12. The diagonal crossbar of an old wooden gate has rusted. The gate is rectangular, 3 m by 4 m. How long is the crossbar (diagonal)?

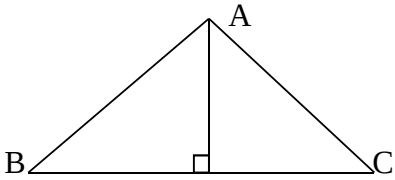
13. Find the length of a diagonal of a square enclosure with a perimeter of 16 m.



14. A Port (P) is 62 km South of a lighthouse (L). A Marker buoy (B) is east of the Lighthouse. Knowing that PB is 75km apart. Calculate distance LB.



15. ABC is an isosceles triangle, AB=AC=12 cm. BC =10 cm. Calculate the perpendicular distance from A to BC.



16. An 8m long ladder leans against a wall. Its base on the ground is 6m away from the wall. Its top reaches a window. How high is the window above ground?