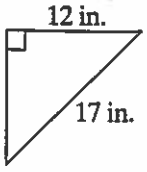
Name _____ Class _____ Date _____

Practice 3-3

Using The Pythagorean Theorem

Find the missing leg length. If necessary, round the answer to the nearest tenth.

1. 

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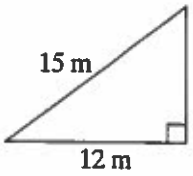
2. 

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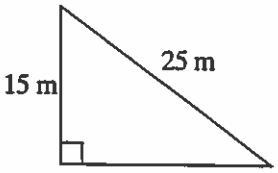
3. 

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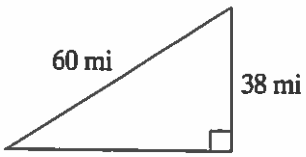
4. 

_____

For Exercises 5–14, a and b represent leg lengths and c represents the length of the hypotenuse. Find the missing leg length. If necessary, round to the nearest tenth.

5. $a = 8$ cm, $c = 12$ cm

_____

6. $b = 9$ in., $c = 15$ in.

_____

7. $b = 5$ m, $c = 25$ m

_____

8. $a = 36$ in., $c = 39$ in.

_____

9. $a = 10$ m, $c = 20$ m

_____

10. $b = 24$ mm, $c = 25$ mm

_____

11. $a = 9$ yd, $c = 41$ yd

_____

12. $b = 10$ cm, $c = 26$ cm

_____

13. $b = 27$ yd, $c = 130$ yd

_____

14. $a = 11$ mi, $c = 61$ mi

_____

15. One leg of a right triangle is 4 ft long and the hypotenuse is 5 ft long. Ritchie uses $\sqrt{4^2 + 5^2}$ to find the length of the other leg. Is Ritchie correct in his approach? Why or why not?

_____

_____

_____

me _____ Class _____ Date _____

Puzzle 3-3

Using the Pythagorean Theorem

Settle the Argument

The triangles below show the streets that lead from Mike's house to school, Enrico's house to school, and Jamal's house to school. Each boy argued that he lived the closest to the school. Use what you know about the Pythagorean Theorem to settle the boys' argument.

Which boy lives closest to school? _____

Who lives the farthest from school? _____