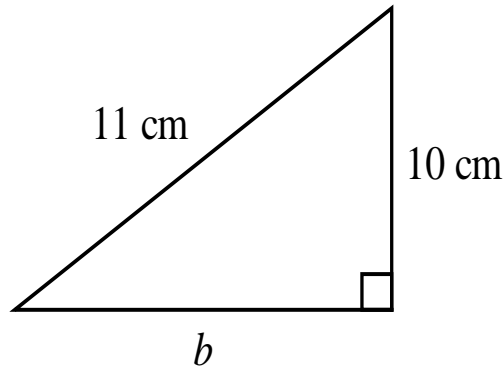


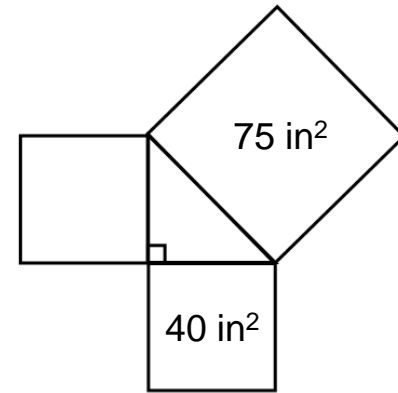
## Problem 1:

Find the length of the unknown side to the nearest tenth.



## Problem 2:

Find the area of the smallest square.

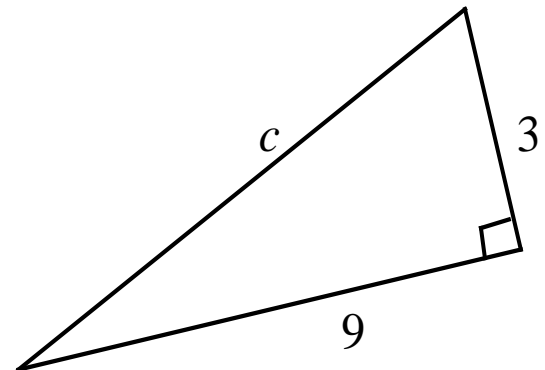


## Problem 3:

The lengths of two sides of a right triangle are leg: 12 inches and hypotenuse: 13 inches. Find the length of the third side.

## Problem 4:

Find the length of the hypotenuse. Estimate to the nearest tenth.

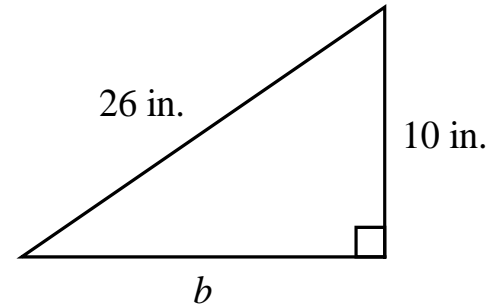


## Problem 5:

Find the distance between the points (5, 1) and (2, 5).

## Problem 6:

Find the length of the missing side.



## Problem 7:

The lengths of two sides of a right triangle are leg: 2 inches and hypotenuse: 3 inches. Find the length of the third side to the nearest tenth.

## Problem 8:

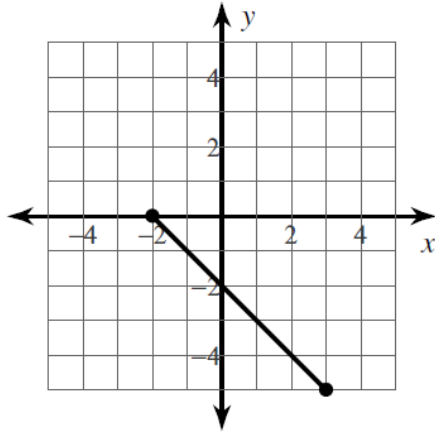
Determine if a triangle is a right triangle given the following side lengths:

a. 5, 8, 12

b. 8, 10, 14

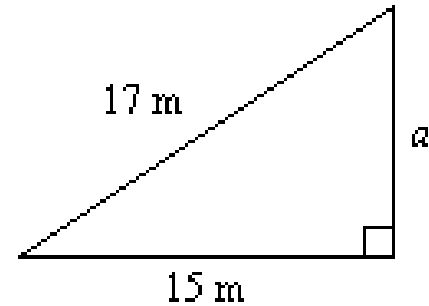
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Find the distance to the nearest tenth.



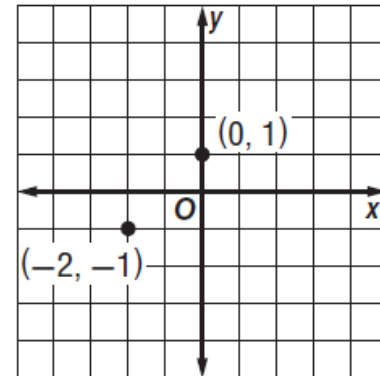
## Problem 10:

Find the perimeter of the triangle.



## Problem 11:

Find the distance between the points to the nearest tenth  $(7, 7)$  and  $(1, 5)$ .



## Problem 12:

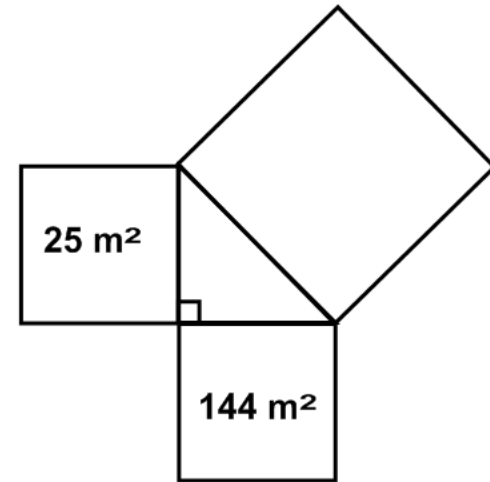
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## Problem 13:

The bottom of a 15-foot ladder is placed 5 feet from the side of a building. How far above the ground will the ladder reach? Round to the nearest tenth.

## Problem 14:

What is the length of the hypotenuse?



## Problem 15:

Subway stations on a Boston city map have coordinates  $(-3, 5)$  and  $(2, -10)$ . What is the distance between the two subway stations? Round to the nearest tenth.

## Problem 16:

Determine if a triangle is a right triangle given the following side lengths:

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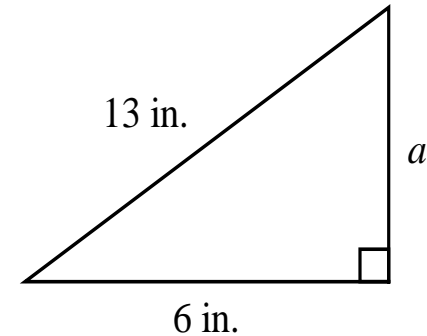
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## Problem 17:

The baseball game is at a field 2 miles west of Ms. J's house. There is also a swim meet being held 5 miles south of Ms. J's house. How far will Ms. J drive to get from the baseball game to the swim meet? Round to the nearest tenth.

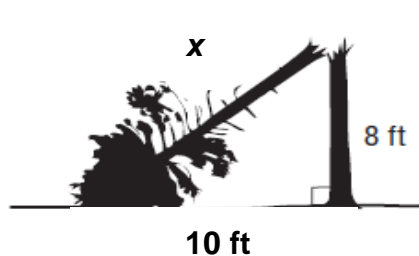
## Problem 18:

Find the length of the unknown side.



## Problem 19:

During a storm a tree fell as shown below. Which equation could be used to find the missing length?



A.  $10^2 - 8^2 = x$

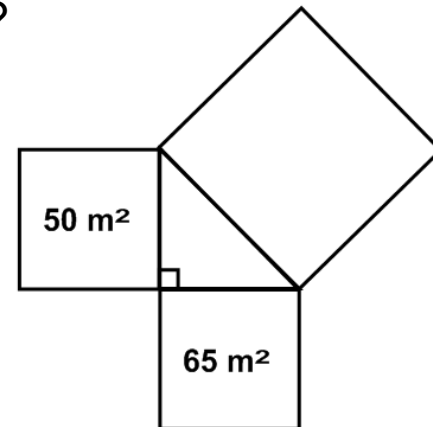
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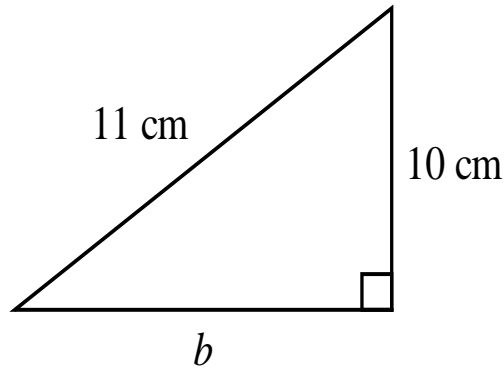
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What is the area of the largest square?



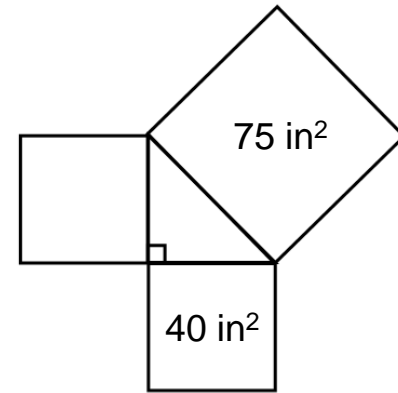
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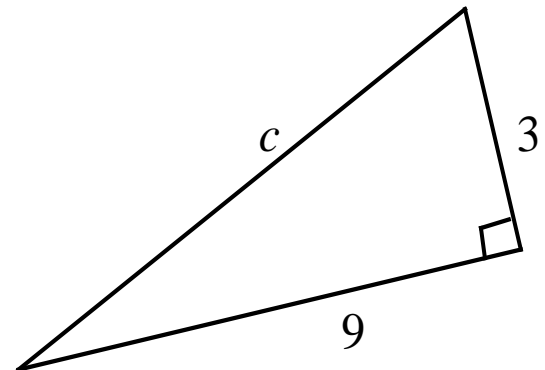


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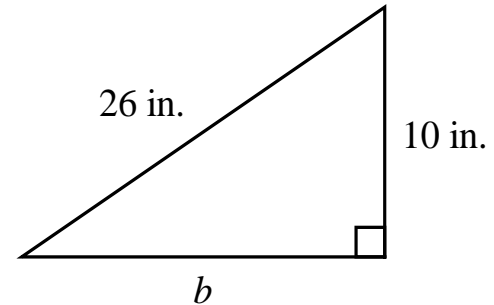


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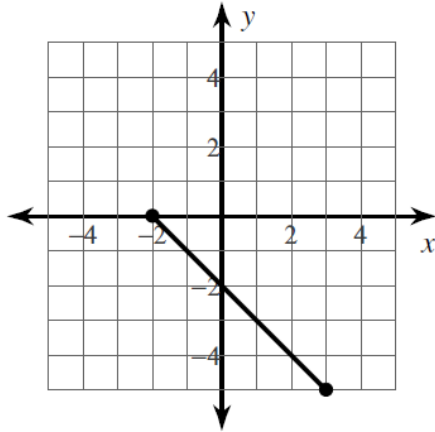
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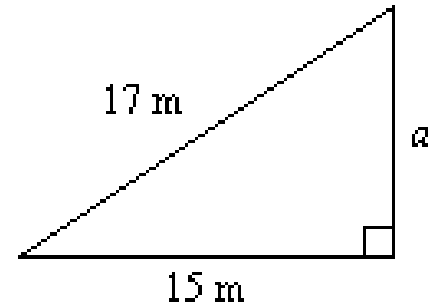
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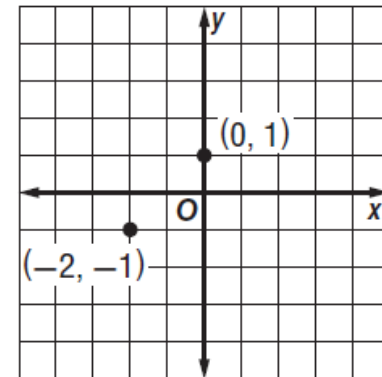
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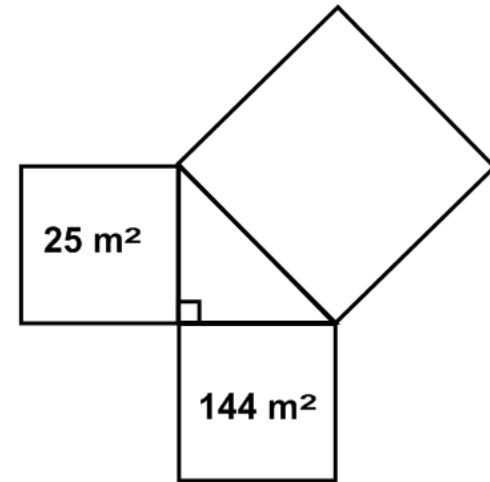


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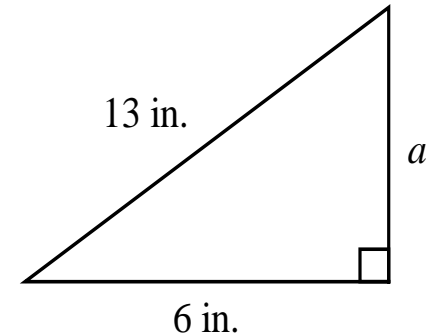
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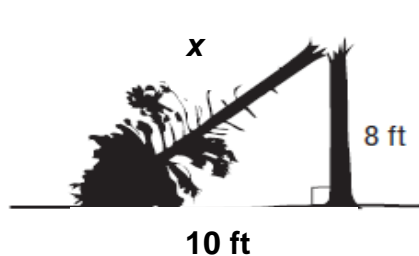
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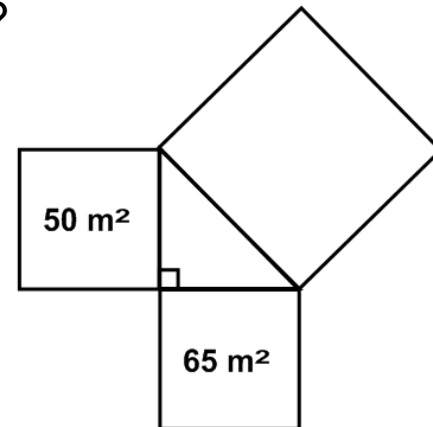
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C.  $\sqrt{10^2 - 8^2} = x$

D.  $\sqrt{10^2 + 8^2} = x$

## Problem 20:

What is the area of the largest square?



1.  $\sqrt{21} = 4.6$
2.  $35 \text{ in}^2$
3.  $5 \text{ in}$
4.  $9.5$
5.  $5$
6.  $24 \text{ in}$
7.  $\sqrt{5} = 2.2$
8. a. No                      b. No
9.  $7.1$
10.  $40$
11.  $\text{root } 40 = 6.3$
12.  $2.8$
13.  $\text{root } 200 = 14.1$
14.  $13 \text{ m}$
15.  $\text{root } 50 = 7.1$
16. a. Yes                      b. No
17.  $\sqrt{29} = 5.4$
18.  $\sqrt{133} \text{ in} = 11.5$
19. D
20.  $115 \text{ m}^2$