

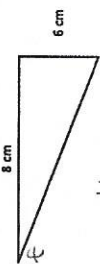
used with
Right Triangle only
 $a^2 + b^2 = c^2$

The Pythagorean Theorem Review

Name: Elijah Cooper Date: 12/2/19

hypotenuse

1. What is the value of the hypotenuse in the triangle below? $6^2 + 8^2 = 100$



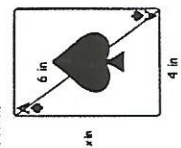
$$6^2 + 8^2 = c^2$$

$$36 + 64 = c^2$$

$$100 = c^2$$

$$c = 10$$

2. Betty measured the diagonal length of a playing card to be 6 inches. The short side of the card is 4 inches. What is the length of the long side of the playing card?



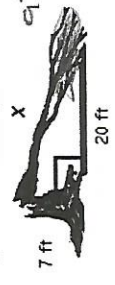
$$4^2 + x^2 = 6^2$$

$$16 + x^2 = 36$$

$$x^2 = 20$$

$$x = \sqrt{20} \approx 4.47$$

3. Before the owner of a tree-removal service will give an estimate to remove a tree, he must first know the length of the fallen part of the tree (x). Find the length of the fallen part of the tree and leave your answer in radical form.

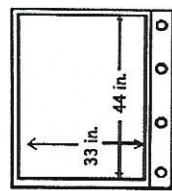


4. Jalen jogged 10 miles due north, then turned due west and jogged 5 more miles. How many miles is Jalen from his starting point? (shortest distance)

$$10^2 + 5^2 = 125$$

$$\sqrt{125} = 11.18$$

5. What is the diagonal measurement of the TV screen shown in the figure above?

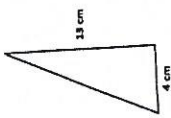


$$33^2 + 44^2 = 2917$$

$$\sqrt{2917} = 54.01$$

6. Find the length of the unknown side in the right triangle.

$$41^2 + 13^2 = 52^2$$

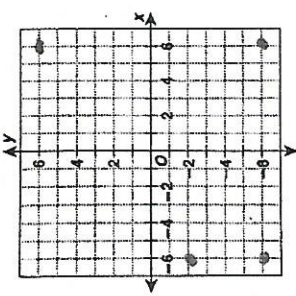


7. An isosceles right triangle has 6 cm legs. Find the length of the hypotenuse.

$$36 + 36 = 72$$

$$\sqrt{72} = 8.49$$

8. On the graph below, plot the points (-6, -6) and (6, 6). Find the distance between the two points.



9. On the graph below, plot the points (5, -2) and (1, 3). Find the distance between the two points.

