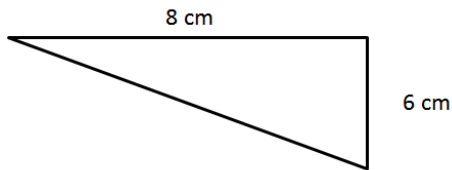


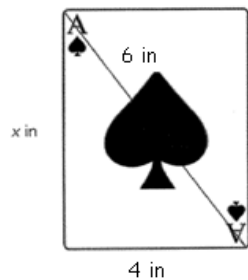
# The Pythagorean Theorem Review

Name: \_\_\_\_\_ Date: \_\_\_\_\_

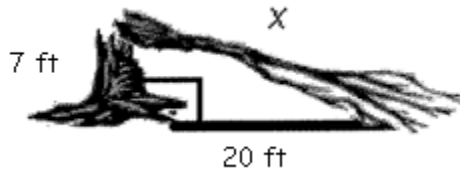
1. What is the value of the hypotenuse in the triangle below?



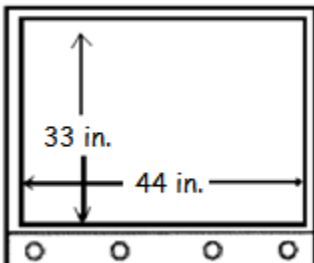
2. Betty measured the diagonal length of a playing card to be 6 inches. The short side of the card is 4 inches. What is the length of the long side of the playing card?



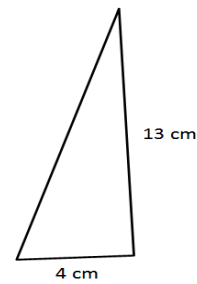
3. Before the owner of a tree-removal service will give an estimate to remove a tree, he must first know the length of the fallen part of the tree ( $x$ ). Find the length of the fallen part of the tree and leave your answer in radical form.



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)

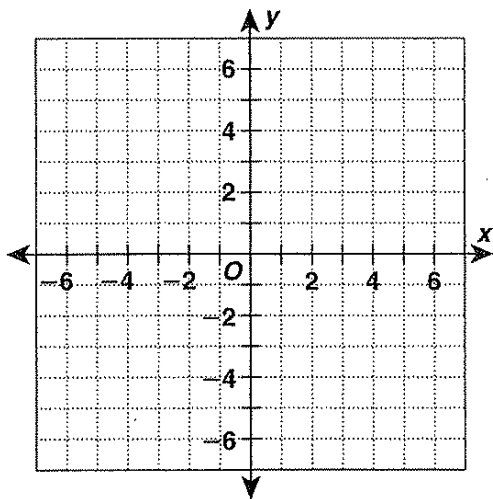
5.  What is the diagonal measurement of the TV screen shown in the figure above?

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

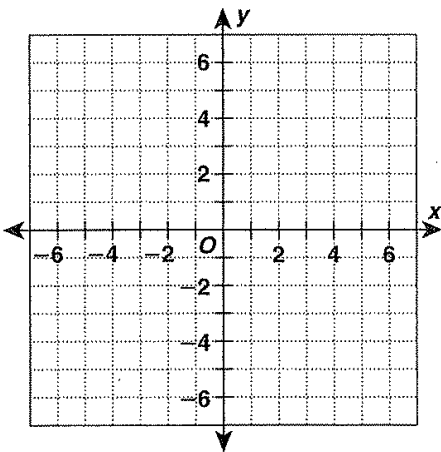


7. An isosceles right triangle has 6 cm legs. Find the length of the hypotenuse.

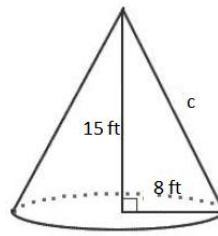
8. On the graph below, plot the points  $(-6, -6)$  and  $(6, 6)$ . Find the distance between the two points.



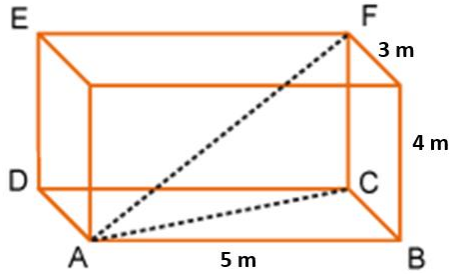
9. On the graph below, plot the points  $(5, -2)$  and  $(1, 3)$ . Find the distance between the two points.



10. Find the slant height,  $c$ , of the cone.



11. Find the length of segment  $AF$ .

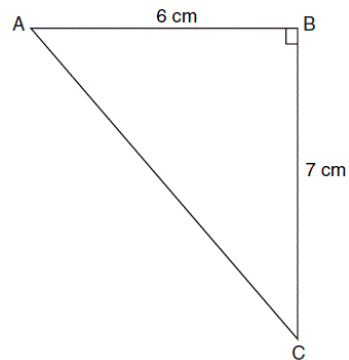


12. A square has a side length of 15 cm. Which of the following is closest to the length of a diagonal of the square?

- A. 15 cm      B. 18 cm      C. 21 cm      D. 24 cm

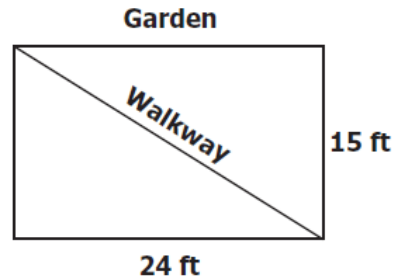
13. What is the length of segment  $AC$ ?

- A.  $\sqrt{85}$  cm  
B.  $\sqrt{13}$  cm  
C. 8 cm  
D. 10 cm



14. Mr. Ammons is constructing a walkway through his rectangular garden. The walkway runs diagonally as shown in the diagram. Which is closest to the length of the walkway?

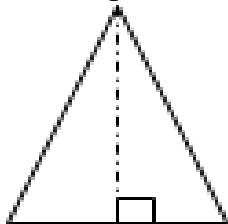
A. 18.7 ft  
B. 28.3 ft  
C. 30.0 ft  
D. 39.0 ft



15. Is a triangle with side lengths 23, 30 and 19 a right triangle? Show why or why not.

16. Is a triangle with side lengths 21, 20 and 29 a right triangle? Show why or why not.

17. An isosceles triangle has congruent sides of 20 cm. The base is 12 cm. Find the height of the triangle.



18. Two sides of a right triangle are 8 and 15. Find the missing side if 8 and 15 are a leg and the hypotenuse.