Name $\qquad$ Date $\qquad$ Period $\qquad$

## Pythagorean Theorem Worksheet

Solve for each variable. Leave answer in simplest radical form. Show all work.

| 1. |  |
| :---: | :---: |
|  |  |
| 3. | 7. |
| 4. | 8. |


| 9. | 12. Find the length of the diagonal of a square whose side length is 10 inches |
| :---: | :---: |
| 10 . The length of one of the legs in a right triangle is 4 inches. If the hypotenuse is 12 inches long, what is the length of the other leg? | 13. The diagonal crossbar of an old wooden gate has rusted. The gate is rectangular, 3 feet by 4 feet. How long is the crossbar (diagonal)? |
| 11. Find the length of a diagonal of a square enclosure with a perimeter of 16 feet. | 14. What is the diagonal measurement of the TV screen shown in the figure below? <br> 44 in <br> 38 in |

Given the following vertices, find the lengths of each side of the right triangle.

| $15 .(4,-3),(8,-3),(4,-7)$ | $16 .(0,0),(6,0),(6,8)$ |
| :--- | :--- |

17. Solve for x :

