

# Last Final Review Geometry A

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

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

1. On level ground, a person 6 feet tall casts a shadow of 8 feet. At the same time, a nearby tree casts a shadow of 20 feet. Find the number of feet in the height of the tree.

2. A 10-foot flagpole casts a shadow of 15 feet on level ground. A 6-foot man is standing next to the flagpole. Find the number of feet in the length of the shadow cast by the man

3. A child who is 4 feet tall casts a 6-foot shadow at the same time that a nearby tree casts a 30-foot shadow. What is the height, in feet, of the tree?

4. Which is a point of intersection of the graphs of  $y = 4 - x$  and  $y = x^2 - x$ ?

A. (3, 1)                      B. (-1, 5)  
C. (-2, 6)                      D. (4, 0)

5. Which is a solution for the following system of equations?

$$\begin{aligned}y &= x^2 \\ y &= -2x + 15\end{aligned}$$

A. (-3, 9)                      B. (5, 25)  
C. (3, 9)                      D. (-5, 3)

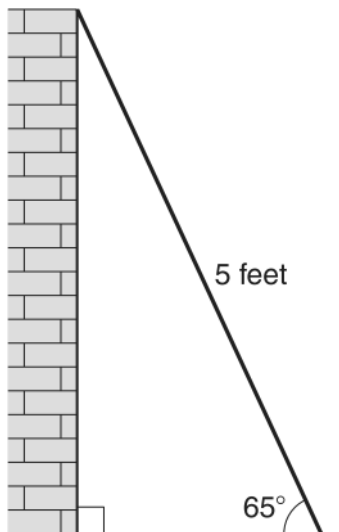
6. Solve the following system of equations and check:

$$\begin{aligned}y &= x^2 - 4x + 3 \\ y &= 2x - 2\end{aligned}$$

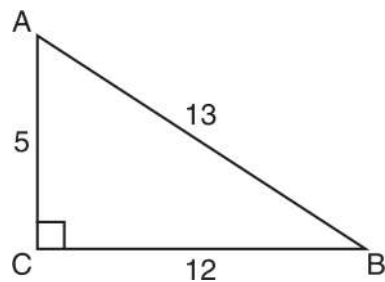
7. The graphs of the equation  $y = x^2 - 5x + 6$  and  $x + y = 6$  are drawn on the same set of axes. At which point do the graphs intersect?

A. (4, 2)    B. (5, 1)    C. (3, 3)    D. (2, 4)

8. As shown in the diagram below, a ladder 5 feet long leans against a wall and makes an angle of  $65^\circ$  with the ground. Find, to the *nearest tenth of a foot*, the distance from the wall to the base of the ladder.



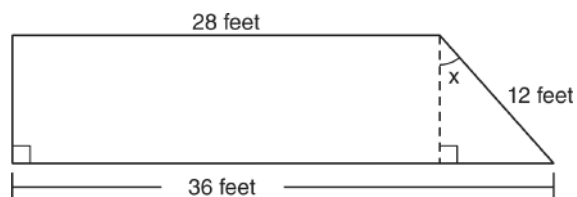
9. The diagram below shows right triangle  $ABC$



Which ratio represents the tangent of  $\angle ABC$ ?

- A.  $\frac{5}{13}$     B.  $\frac{5}{12}$     C.  $\frac{12}{13}$     D.  $\frac{12}{5}$

10. A trapezoid is shown below.



Calculate the measure of angle  $x$ , to the *nearest tenth of a degree*.

- |         |                   |
|---------|-------------------|
| 1.      |                   |
| Answer: | 15                |
| 2.      |                   |
| Answer: | 9                 |
| 3.      |                   |
| Answer: | 20                |
| 4.      |                   |
| Answer: | C                 |
| 5.      |                   |
| Answer: | C                 |
| 6.      |                   |
| Answer: | (1, 0) and (5, 8) |
| 7.      |                   |
| Answer: | A                 |
| 8.      |                   |
| Answer: | 2.1               |
| 9.      |                   |
| Answer: | B                 |
| 10.     |                   |
| Answer: | 41.8              |