Unit 12 Study Guide

Square Roots

These questions are about two different squares.

1. A square has a side length of 8 units. What is the area of the square?

2. A different square has an area of 25 square units. What is the side length of this square?

Pythagorean Theorem

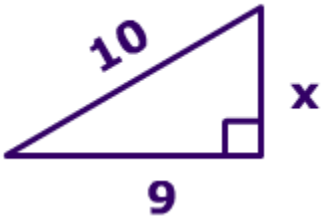
3.) Determine whether the following numbers could be the sides of a right triangle. Show your work.

6, 12, 14

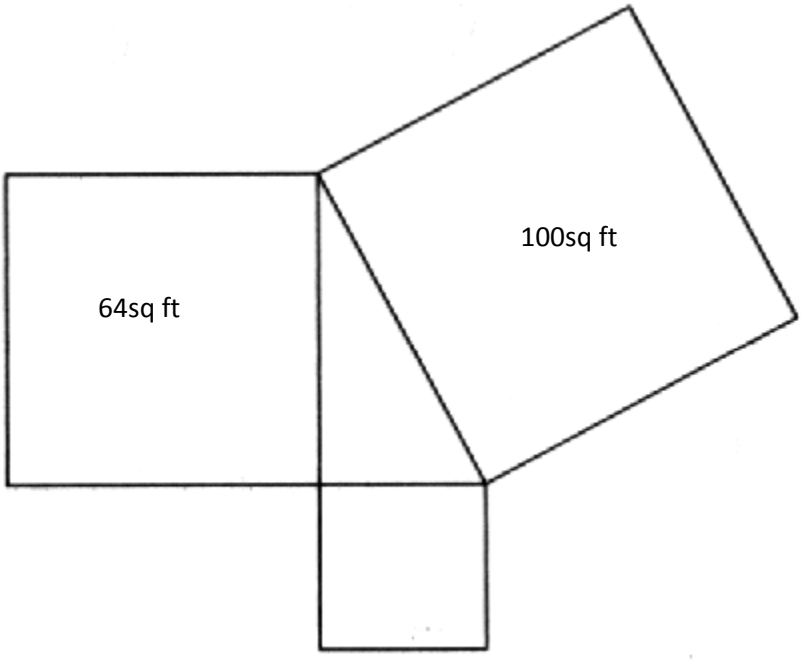
4.) Determine whether the following numbers could be the sides of a right triangle. Show your work.

3, 5, 4

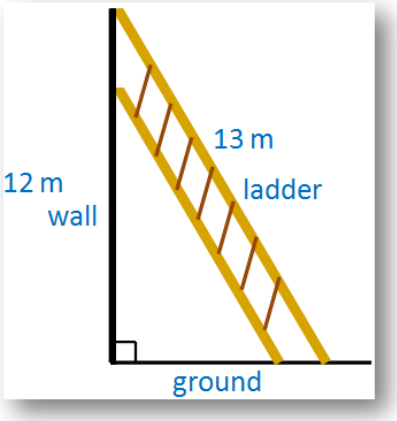
5.) Solve for *x* in the triangle.



6.) Find the area of the square created using the smallest side of the right trianlge below.



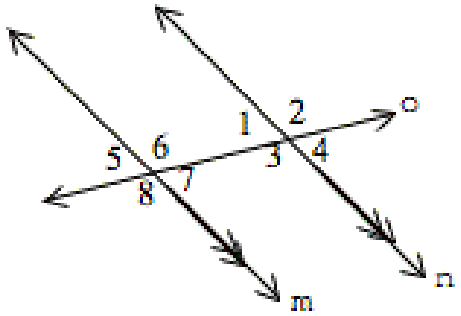
7.) Find the missing side:



8. A rectangular park has been constructed downtown. The designer wants to put a gravel walkway that cuts diagonally through the park. If the park is 50 yards wide and 200 yards long, what is the length of his walkway?

Angles

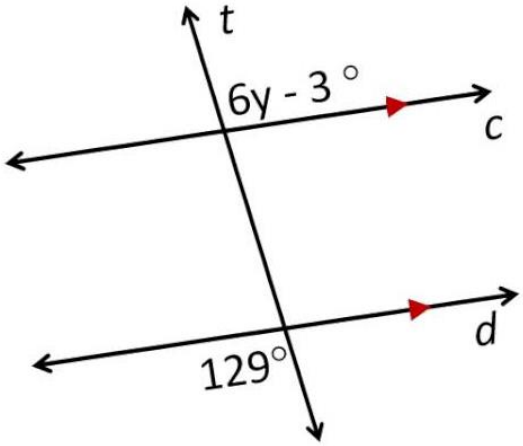
Use the image at right.



9.) $\angle 1$ and $\angle 7$ are _____ angles.

A. Supplementary
B. Parallel
C. Alternate Interior
D. Corresponding
E. None of these

10.) The value of *y* in the diagram at right is



Exponent Review

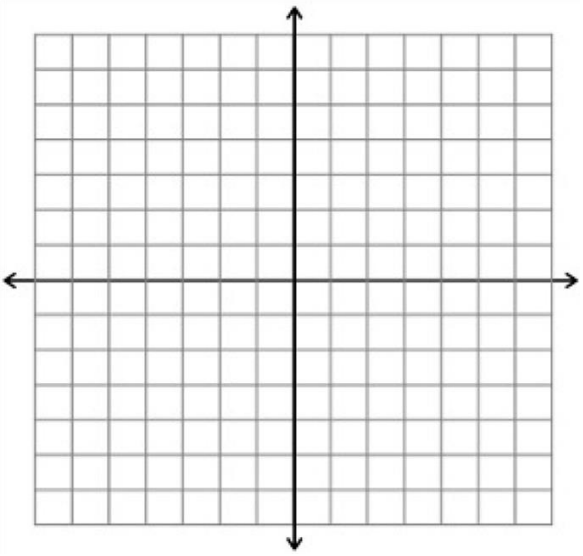
Simply each.

11). $6a^2b^3(8a^5b^{-6})^4$

12) . $\dfrac{14w^6}{7w^2}$

Graphing Review

13.) Graph y = -3x + 1



Equation Review

14.) solve for b: 3b – 1 + 4a – 3(4b – a) = -(3a – 2b)

15. $\frac{x}{3} + \frac{2x}{2} = \frac{2x+3}{2} + 1$