

Name: _____

Unit 5 Review

1. Types of triangles to know and how to classify them:

Isosceles-

Scalene:

Equilateral:

Right:

Perimeter of a triangle:

Area of a Triangle:

2. Quadrilaterals and how to classify them:

Quadrilateral:

Parallelogram:

Rhombus

Rectangle:

Square:

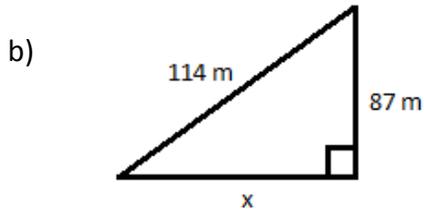
Trapezoid:

3. Applications of the Pythagorean Theorem

Find the missing length. Report **EXACT** values!

- a) 4. Find the length of the hypotenuse of a right triangle, if one leg is 15 and the other leg is 8.

Draw a picture of the triangle!



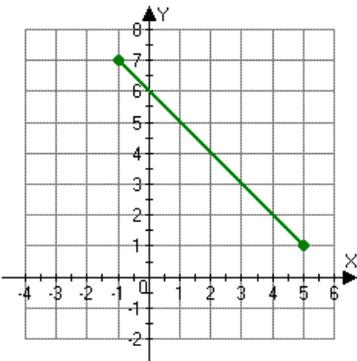
- c. If the diagonal of a rectangle measures 60 inches and one side measures 48 inches, what is the length of the other side of the rectangle?

4. Distance between Points

Find the exact distance between the two points. **SHOW ALL WORK!!**

a)

b) (3, -5) and (-7, 13)



5. Find the midpoint:

a. (7, -3) (8, -3)

b. (-4, -4) (4, 4)

6.a. The endpoint is (-3, 14) and the midpoint is (-1, 12) . Find the coordinates of the other endpoint.

b. The endpoint is (5, 3) and the midpoint is (-2, 3) . Find the coordinates of the other endpoint.

7. Parallel lines-

Perpendicular-

A. Determine if the following are parallel, perpendicular, or neither:

$$y = -4x - 2$$

$$y = 3x - 8$$

$$y = -2 + 4x$$

$$y = \frac{1}{3}x + 5$$

b. Write the slope intercept form of an equation that passes through the given point and is parallel to the given equation: (5, -4) $y = 2x - 3$

c. Write the slope intercept form on an equation that passes through the given point and is perpendicular to the given equation: (-3, 2) $y = -1/4 x - 3$

8. Find the perimeter and area of a rectangle with the length of 4.5 and width of 2.

9. Classify the quadrilateral (WXYZ) as a trapezoid, rhombus, square, or rectangle

a. Slope WX = -3/4 Lengths are all 5 units

$$XY = 3/4$$

$$YZ = -3/4$$

$$ZW = 3/4$$

b. Slopes WX = -1

$$XY = 1$$

$$YZ = -1$$

$$ZW = 1$$

Lengths are all $\sqrt{32}$

c. Slope WX = -2/3 Lengths WX = $\sqrt{13}$

$$XY = 3/2$$

$$YZ = -2/3$$

$$ZW = 3/2$$

$$XY = \sqrt{52}$$

$$YZ = \sqrt{13}$$

$$ZW = \sqrt{52}$$

d. Slope WX = 1/3

$$XY = -1/3$$

$$YZ = -1/9$$

$$ZW = -1/3$$

Lengths WX = $\sqrt{40}$

$$XY = \sqrt{10}$$

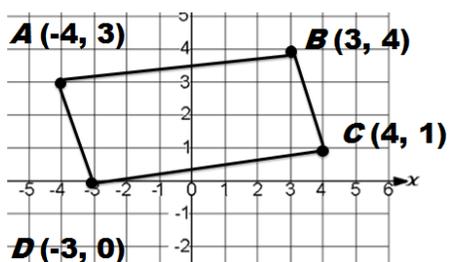
$$YZ = \sqrt{82}$$

$$ZW = \sqrt{40}$$

e. $W(5, 6)$ $X(7, 5)$, $Y(9, 9)$ $Z(7, 10)$

10. Coordinate Geometry

Calculate the perimeter and area of the rectangle below.



AB

BC

CD

AD

Perimeter =

Area =

11. Classify the triangle RST, and determine if it is a right triangle.

Slope : RS = $1/4$

ST = $-2/3$

TR = $-1/7$

Lengths RS = $\sqrt{17}$

ST = $\sqrt{13}$

TR = $\sqrt{13}$

12. Given the vertices of ΔABC , $A(-1, 1)$ $B(2, 3)$ and $C(1, -2)$: Classify the triangle and determine if it is a right triangle.