Geometry R – Mr. Bo
Unit 2 – Review

Name_____

Date_____

1. For each shape, state the area formula:

      a. Triangle   b. Parallelogram   c. Rectangle   d. Trapezoid

2. State the formula for each:
      a. Distance   b. Midpoint   c. Slope

3. State formula for each form of a line:
      a. Point-Slope   b. Slope-Intercept

4. State whether the given pairs of lines are parallel, perpendicular, or neither. Explain your reasoning.

    a.
$$y = \frac{5}{3}x - 4$$
$$y = \frac{3}{5}x + 5$$

    b.
$$6x + 3y = 12$$
$$4x - 8y = 16$$

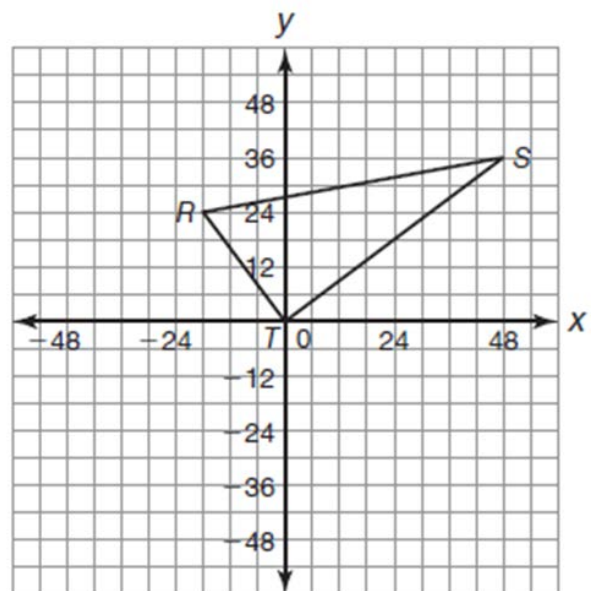   c.
$$y = 4$$
$$y = -2$$

5. Write the equation of the line described. Give your answer in either **Point-Slope** or **Slope-Intercept** form.

      a. The line parallel to the line $y = \frac{4}{3}x - 1$, passing through the point (0,-2).

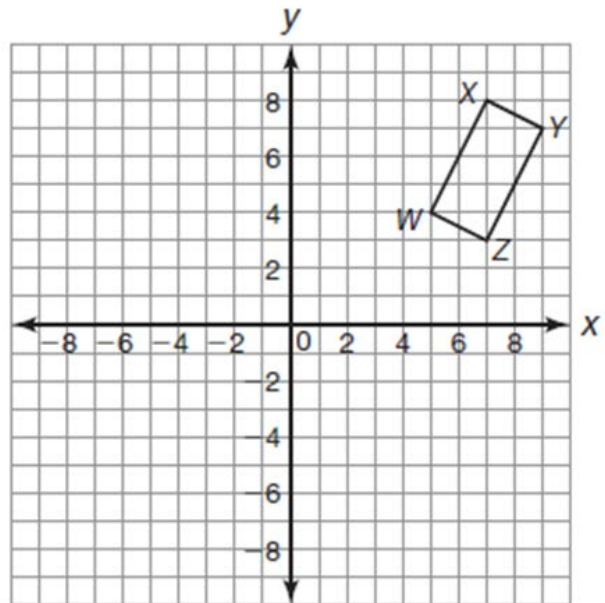b. The line perpendicular to the line $3x + 2y = 9$, passing through the point (2, -3).

c. The vertical line through the point (-4, 2).

6a. Find the area of triangle RST.

b. Is Triangle RST a right triangle? Justify your response with proof.

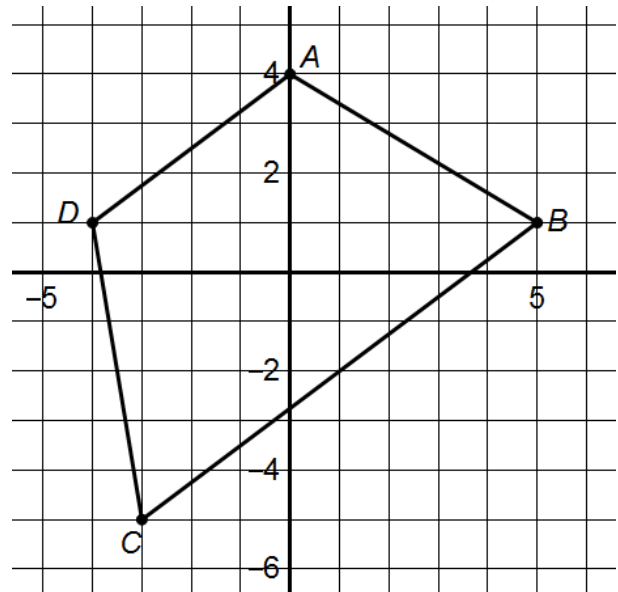7a. Prove that quadrilateral WXYZ is a parallelogram.

b. Find the perimeter of parallelogram WXYZ.

c. Prove parallelogram WXYZ is also a rectangle.

d. Prove that diagonals $\overline{XZ}$ and $\overline{WY}$ are congruent.

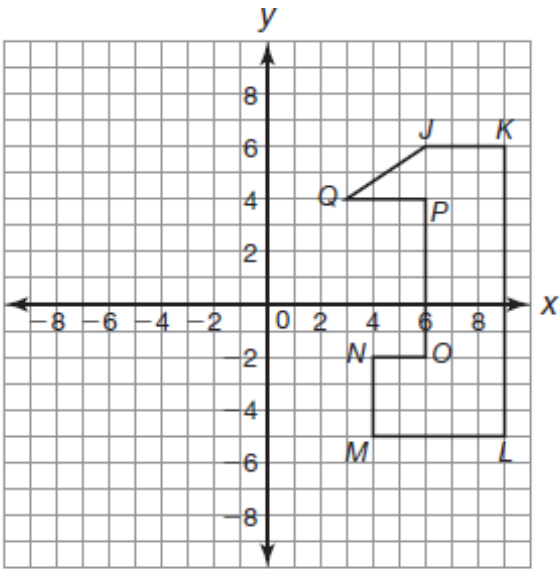8a. Prove that quadrilateral ABCD is a trapezoid.

b. Find the area of trapezoid ABCD.

c. Is trapezoid ABCD Isosceles? Justify your answer with proof.

9. Use the Composite Method to calculate the area of each figure.

a.

b.