1.4 Perimeter and Area in the Coordinate Plane

Directions: Please answer these questions on a separate piece of paper.

- 1. The lines $y_1 = 2x 6$, $y_2 = -3x + 4$, $y_3 = -\frac{1}{2}x + 4$ are the sides of a right triangle.
- a) Use slopes to determine which sides are perpendicular.
- b) Find the vertices of the triangle.
- c) Find the perimeter and area of the triangle.
- 2. Plot the points Q(-1,2), U(3,2), A(-1,-2), D(3,-2).
- a) Find the perimeter and area of the square.
- b) Connect the midpoints of the sides of the given square to make a quadrilateral. Is this quadrilateral a square? Explain your reasoning,
- c) Compare the perimeter and area of the quadrilateral you made in parts (a) and (b).
- 3. Solve for x. $\frac{x+1}{2} = 4x 3$
- 4. What is the difference between a postulate and theorem?

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$$|x-4|=5$$

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