

Name: _____

The Distance and Midpoint Formulas

Exercise 1: Sketch the polygon with the indicated vertices and find the length of each of its segments

- 1) Triangle: $(-1, 1), (2, -1), (3, 4)$
- 2) Triangle: $(0, 3), (-1, -2), (4, 8)$
- 3) Parallelogram: $(5, 2), (7, 0), (1, -2), (-1, 0)$

Exercise 2: Show that the points are the vertices of the indicated polygon.

- 1) Right triangle: $(4, 0), (2, 1), (-1, -5)$
- 2) Isosceles triangle: $(1, -3), (3, 2), (-2, 4)$
- 3) Parallelogram: $(2, 5), (0, 9), (-2, 0), (0, -4)$

Exercise 3: Determine if the figure described by the points is a right triangle or not.

- 1) $(-2, 2), (3, -2), (3, 6)$
- 2) $(-4, 4), (0, 0), (3, 3)$
- 3) $(3, 0), (-1, 2), (5, 4)$