2.1 Notes/Examples

When graphing you must:

Midpoint Formula:

Distance Formula:

Example: Find all points having an x-coordinate of 2 whose distance from the point (-2, -1) is 5.

Triangle Problem

- Plot the points A (-2, 1), B (2, 3), and C (3, 1)

- Find the length of each side of the triangle

- How would you decide if this triangle is a right triangle?

    - Is this triangle a right triangle?

- Find the area of this triangle

2.2 Graphs of Equations in Two Variables; Intercepts; and Symmetry

Graphing by Plotting Points:

How to find: y-intercept? x-intercept(s)?

A graph is **symmetric with respect to the** _____ if for every point (_____, _____) on the graph, the point (_____, _____) is also on the graph.

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Testing for Symmetry:

x-axis	Replace _____ with _____ in the equation and _____. If the equation is _____ as the original, then the graph of the equation is symmetric with respect to the x- axis.
y-axis	Replace _____ with _____ in the equation and _____. If the equation is _____ as the original, then the graph of the equation is symmetric with respect to the y- axis.
Origin	Replace _____ with _____ in the equation and _____. If the equation is _____ as the original, then the graph of the equation is symmetric with respect to the origin.

Which symmetries make the graphs functions?

Do you have to test all three?

How to Properly Show your Tests: