Graphing With Transformations For Exams

- 1. On exams two, three, and the final, you will have to graph using transformations.
- 2. Every transformation will be plotted on its own set of axes.
- 3. The final graph must have three points plotted and labeled using ordered pairs.
- 4. Each intermediate graph must have the equation of the specific transformation written beneath it.
- 5. All intercepts, points of interest, arrows and asymptotes must be plotted and clearly labeled using ordered pairs for the points, and linear equations for the asymptotes.
- 6. Plotting points on the intermediate transformation graphs is optional.
- 7. If a point (i.e. an intercept), does not fit on the axis provided, it must still be reported but not plotted.
 - a. That is, you may not extend the axes to plot a particular point.
 - b. Choose your points so that they fit on the axis provided.

Example: Sketch the graph of $f(x) = -\sqrt{-x-2} + 4$ by starting with the graph of the basic function and applying the appropriate transformations. Label at least three, integer-only points on the final graph using ordered pairs. Use the graph to determine the domain and range of *f*. Use interval notation for domain and range. Identify all intercepts.

