What to Study?

Below is a list of things that you should know for this test. This is a good time to complete Transformations Worksheet 8 problems and re-do old problems for extra practice.

- **All Parent Functions/Relations and their Transformations**.
    - Make sure you know **all** (Linear, Quadratic, Cubic, Absolute Value, Exponential, Square Root, Reciprocal, Sideways Parabolas, Circles) functions/relations properties and equations. Then make sure that you can:
    - Given a graph, find an equation
    - Given an equation, sketch a graph (graphs must show locator point and two more points and if asked, x- and y-intercept(s).
    - Describe domain and range in consistent notation
    - Determine if a given relation is a function or not
    - Use function notation to describe transformations
    - Recognize, given a transformation in function notation, how a given function has transformed
    - Draw a transformed graph of any given relation when a transformation in function notation is given
- **QUADRATICS:**
    - Recognize all three forms of quadratic expressions and know what graphical features can be identified from each form
    - Convert between the three forms
    - Solve a given quadratic equation in any form (Knowing methods of factoring, quadratic formula and zero product property)
    - Use the discriminant to identify how many solutions a quadratic has or how many x-intercepts a parabola has.

You should try the problems without a calculator or Desmos as the exam will be No Calculator (Except, maybe the word problems in the worksheet below)

As you study you should check your answers on Desmos, for example.

More Practice: Transformations Worksheet 8 and Quadratic World Problems