It will not be feasible to cover all of the material from Chapter 1 and all of the Appendices in class. However, you should read over the following sections (in order, as needed):

- Appendix A: Numbers, inequalities and absolute values. Pay special attention to solving inequalities using a "sign chart" (Examples 3 and 4 in Appendix A).

- Appendix B: Coordinates and Lines. Be sure you recall the distance formula, the formula for the slope of a line, and the point-slope form of a line. Recall what it means to have two lines perpendicular and parallel.

- Appendix C: Be familiar with the general equation of a circle and an ellipse. Know the difference in form between an ellipse and a hyperbola.

- Section 1.1-1.3 and 1.5-1.6 (you may skip Section 1.4).

- Appendix D: Trigonometry. Especially be familiar with the definitions, unit circle, and the Fundamental Identities from the Reference Page (at the front of the text). These are also on the trig review handout.

Review Set, Homework for Day 1

1. (App. B) Find an equation of the line that satisfies the given condition:

   (a) Through $(2, -3)$ perpendicular to $2x + 5y + 8 = 0$
   (b) Perpendicular to the previous line, through $(1, 1)$.

2. (App B) Find the point on the $y-$axis that is equidistant from $(5, -5)$ and $(1, 1)$. HINT: How is a generic point on the $y-$axis represented?

3. (App A) Solve the inequality for x:

   (a) $1 < 4 - 2x \leq 5$
   (b) $\dfrac{(x - 1)(x + 2)}{(x + 1)} \geq 0$

4. (App C) Write the equation of the circle of radius 3 centered at $(-2, 5)$.

5. (App C) Write the equation of the ellipse that has its major/minor axes parallel to the $x-$ and $y-$ axes respectively, centered at $(3, 4)$ with axes lengths 4 and 3, respectively.

6. Complete the square: $2x^2 - 4x + 1$ (Recall that your answer should be in the form: $a(x - b)^2 + c$ for suitable numbers a, b, c).

7. Section 1.1: 2, 3, 7, 9, 25, 27-30, 31, 33, 38, 49, 53, 55, 69-70

8. Section 1.3: 3, 5, 7, 9, 15, 21, 28, 30, 33, 35, 37, 39, 41, 43, 47, 50, 51

   In Section 1.3, pay particular attention to *function composition* and function notation. For example, given a formula for $f(x)$, be able to write (and simplify) an expression for something like $f(a + h) - f(a - h)$

Review Set, Homework for Day 2

This homework focuses on exponentials, logs and trigonometry (Sections 1.5, 1.6 and App D). If you weren't able to finish the previous homework, include that as well.

1. App D: 1-37 odd, 43-53 odd(*), 59-81 odd

   (*)- You may use the formulas from the text to help.

2. Sect 1.5: 1-5, 16, 25

   In Section 1.5, we have the exponent laws from algebra- Be sure you review them (covered in 1-4 of the exercises)!

3. Sect 1.6: Two important things that students tend to forget: Laws of logarithms (bottom of pg 63) and the notation and use of inverse functions. In particular, read over the discussion about the inverse trigonometric functions- We will focus primarily on the inverse sine and inverse tangent (but the others are nice to know, too). Here are the exercises broken out by skill- Pick a few from each (depending on how much practice you need).

   (a) Problems that practice one-to-one and function notation: 5-18
   (b) Problems that practice how to compute an inverse: 21-31, 57
   (c) Problems that practice the laws of logarithms: 35-41, 51-56
   (d) Problems that practice the inverse trig functions: 63-72.