

Math 110 Quiz # 1 Review of awesomeness!!!

Brian Griffin

October 15, 2009



Hi everyone, Brian Griffin here to tell you about what the upcoming quiz will be about. I hope you use this review sheet as a guide to help you see what exactly Corey finds interesting to help point your studying in the right direction, section by section. The quiz will cover the sections described below. ROCK ON!

1. Section 3.1: Rectangular coordinate systems. In this section we learned about plotting points on the coordinate plane, the distance formula, and the midpoint formula. I would suggest that you know how to apply each of these formulae.
2. Section 3.2: Graphs of Equations. Here, we learned about what exactly the graph of an equation is, and certain types of interesting symmetry of graphs. In addition, we decided that there were certain interesting points on a graph, the x - and y -intercept, for instance. Being able to locate those for a given equation and/or graph would be useful. In addition, we studied the equation of a circle as an application of the distance formula, and how sometimes completing the square (twice) is needed to extract the center and radius of such a circle. Being able to do that would also be good!
3. Section 3.3: Lines. This section was a good push into the study of lines and linear functions. . . and there's a lot in this section to know. For instance, knowing what the

slope of a line is, and how it relates to the line is of utmost importance. In addition, forms of the line such as “point-slope” and “slope-intercept” helped to graph lines and understand generally the line itself. Determining equations of lines using these equations, especially the point-slope form, is important to know. A final application of learning about lines was to know how to find lines either parallel or perpendicular to a given line.

4. Section 3.4: Functions. We studied what a function is, and other associated objects such as domain, range, and implied domain. The notation $f(x)$ is central to our ongoing discussion of functions, and a firm understanding of this notation is essential. Finally, we discussed the vertical line test insofar as determining if the graph of an equation could be the graph of a function.
5. Section 3.5: We discussed how to manipulate the graphs of functions in terms of the algebraic representation of the function itself: for example, a function $g(x) = f(x - 1)$ has a graph identical to that of $f(x)$, but shifted one unit to the right. Knowing each of these rules and how they effect the look of a given graph is important, as is the opposite question: seeing the rule of a function and being able to determine how it has been altered from another more well-understood function. Our work in class has been geared towards this. Finally, an understanding of the absolute value will also prove to be very important.
6. General remarks. Generally, this quiz will be straightforward—no tricks. Many of the questions will be very similar (if not identical) to the homework questions, so that if you’ve been keeping up with your homework, then you’ll pretty much ace the quiz. Be sure to catch Corey in his office hours if you have any questions. Good luck, and ROCK ON!!!!!!