

Math 213 Quiz # 3 Review Sheet

The Hypno-Toad

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Hello, earthlings! This is the Hypno-Toad, here to hypnotize you into learning mathematics! Here is some helpful information for you as you prepare for your quiz # 3.

1. Section 9.7: Taylor and Maclaurin Polynomials. This section introduced us to the idea that an indeterminate inside of an infinite sum could represent a function. In particular, functions which were “infinitely long” polynomials were of particular interest, and these were what we called power series. The terms Taylor Series and Maclaurin series are used as one entertains the idea that a center could be chosen to be nonzero, or zero (respectively). So what one wants to know from this section is how to construct a Taylor (or Maclaurin) series, depending on where the center is. I have hypnotized Corey and ensured that he will give you a function, and ask you to find a Taylor or Maclaurin polynomial of degree 2 for the given function. So I suggest that you study problems 13–24 from this section, as they may be good practice.
2. Section 9.8: Power Series. This section is a description of how one finds the radius of convergence, and interval of convergence of a given power series. We notice that these are really the only sorts of problems that Corey did in class, and man, did he do a lot of them! I suggest strongly that you know how to find the radius and interval of convergence of a given power series, and any homework question which asks you to do this is a good one to study.
3. Other info: ROCK ON!