

Math 134 Spring 2018
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Homework Quiz 11

Name: _____

Show all your work and simplify your answers unless otherwise specified. If you do not turn in a rewrite within a week (or after the fifth attempt), your score will be solidified.

1. Consider the polynomial function

$$f(x) = -2x^2(x - 1)^3(x + 3).$$

Find the x-intercepts (as well as their multiplicities), the y-intercept, describe the end behavior, and sketch the graph.

2. A farmer has 2400 ft. of fencing and wants to fence off a rectangular field that borders a straight river. He needs no fence along the river. What are the dimensions of the field that has the largest area? What is this largest area?