

Name: _____

Date: _____

Instructions: Please complete the following problems for extra practice before the final exam.

Problem 1. Find the difference quotient of $f(x) = -x^2 - x$

Problem 2. Graph the function $f(x) = x(x - 3)^2(x + 2)^2$

Problem 3. Sketch 1 cycle of the graph $f(x) = -3\sin(\frac{1}{2}x) + 1$

Problem 4. Find the inverse of $f(x) = \frac{3x + 2}{5x - 7}$

Problem 5. Evaluate $y = \tan[\sin^{-1}(-\frac{1}{3})]$

Problem 6. Graph $f(x) = \frac{x^2}{(x + 4)(x - 1)}$