MATH 1111 PRACTICE TEST 3 FALL 09

0. (2 points if it is printed neatly)_____

1. Solve the inequality and sketch the solution on the real number line: $x(x+1) < 20$

2. Solve $|2x-1| \leq 5$

4. Write $f(x) = 2x^2 + 8x - 3$ in the form $f(x) = a(x-h)^2 + k$

5. (4 points) Find the vertex, all intercepts and then graph: $y = x^2 - 4x - 5$

6. Find the zeros of $f(x) = x^3 - 5x^2 - 24x$

7. Use synthetic division to evaluate $f(4)$ if $f(x) = x^4 - x^2 + 3x - 1$

8. List the potential rational zeros of $f(x) = 5x^4 - 3x^3 + 5x - 7$. Do not attempt to find the zeros.

9. Find the zeros of $f(x) = x^3 - 2x^2 - 5x + 6$

10. Solve $x^3 - 5x^2 + 11x - 15 = 0$

11. Evaluate each of the following on a calculator: Round answers correct to four decimal places

(a) $3.4^{1.9}$ (b) $0.3^{-2.9}$ (c) e^3 (d) $\ln 34$ (e) $\log 13$

12. Find how much money you have if you invest $5,000 for 5 years at 4% compounded quarterly. Round your answer to the nearest cent.

13. Find how much you have after 6.3 years if you invest $2,000 at 6% compounded continuously. Round your answer down to the nearest cent.

14. Without using a calculator find $y = \log_2 8$

15. Without using a calculator find $y = \log_{15} 1$