

# MATH 1111 Practice Final Exam #3 Key

1.  $2x^3 - x^2 - x - 3$

2.  $\frac{(x + x^2 - 1)}{(x + 1)(x + 2)(x - 1)}$

3.  $5x^3y^2$

4. 1.1

5. 35 cars

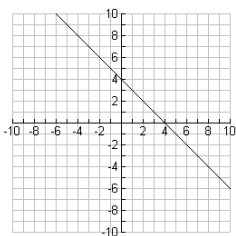
6.  $\left\{ \frac{-3 \pm i\sqrt{3}}{2} \right\}$

7.  $\{-2, 1, 2\}$

8.  $[5, \infty)$

9.  $\left(-\frac{13}{2}, \frac{7}{2}\right)$

10. 2 gallons



11.

12.  $\frac{3}{4}$

13. \$1,500

14.  $y = 6$

15. 160 times per second

16.  $\{x|x \neq 5\}$

17. 4

18.  $-2x^2 + 2$

19. (1, 0) and (20, 0)

20.  $(-4, -37)$

21.  $(-\infty, -4] \cup [-1, 2]$

22. -3

23. 10

24.  $f^{-1}(x) = \sqrt[3]{x - 4}$

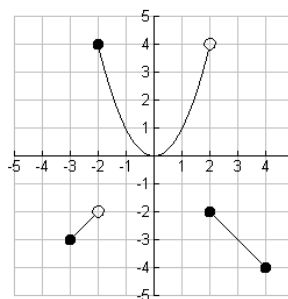
25.  $-2 = \log_5 0.04$

26.  $\{-0.333\}$  or:  $\left\{-\frac{1}{3}\right\}$

27.  $\{2\}$

28. 13.5 years

29.  $x = 68, y = 32$  or  $\{(68, 32)\}$



30.