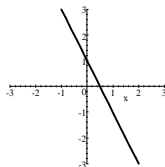


MATH 1111 FINAL FALL 2001  
KEY

1.  $\frac{2y^4}{x^3}$
2.  $x^3 - 8$
3.  $\frac{x^2 - 5x - 12}{(x-3)(x+3)}$
4.  $4x^2y$
5.  $\frac{(x-2)x}{2(x+1)}$
6.  $(x-2)(2x^2 - 3)$
7. 3 gallons of the 10% solution and  
2 gallons of the 5% solution
8.  $x = 1 + \sqrt{7}$  or  $x = 1 - \sqrt{7}$
9.  $x = 14$
10.  $x = 4$  or  $x = -1$
11.  $\{x : x < 2\}$
12.  $\{x : -2 < x < 5\}$
13.  $(2, 3)$
- 14.



15.  $y = 2x + 8$
16.  $y = -\frac{1}{3}x + 1$
17. center:  $(-1, 3)$  radius 3
18.  $z = \frac{8\sqrt{x}}{y^2}$
19.  $\{x : x \neq -4\}$
20.  $(f \circ g)(x) = x^2 + 2x$
21.  $f^{-1}(x) = \frac{5-2x}{x}$
22.  $(-1, -1)$
23.  $4x^2 - 9x + 1$
24.  $3 + i$
25. \$4416.10
26.  $x = 1$
27.  $\log \frac{x^3y}{z^2}$
28.  $x = 0.771$
29.  $x = 1, y = 4$
30. 8