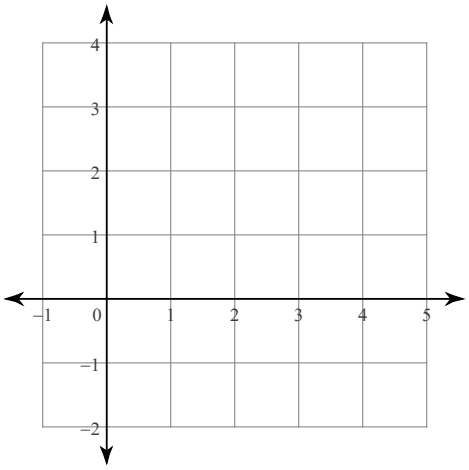
Assignment # Name_____

Review Worksheet Sections 5.1-5.4

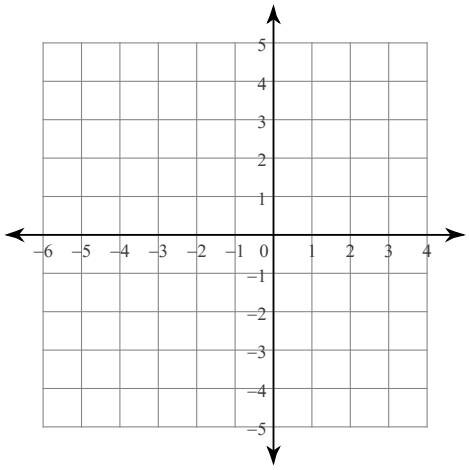
Date_____ Period____

Sketch the graph of each function.

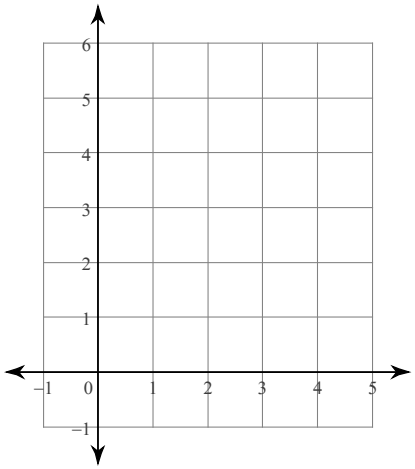
1) $y = x^2 - 4x + 3$



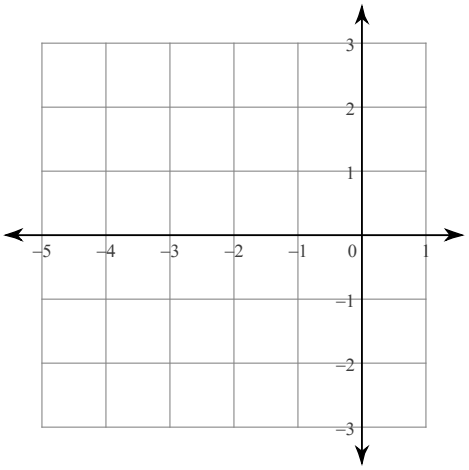
2) $y = -2x^2 - 4x + 2$



3) $y = \frac{1}{2}(x-2)^2 + 2$



4) $y = -(x+3)^2 + 2$



5) $y = -2(x-3)(x+1)$

6) $y = \frac{1}{2}(x+6)(x+2)$

Solve each equation by factoring.

7) $v^2 = 24 - 5v$

8) $m^2 - 5m = -6$

9) $r^2 + 6r = 0$

10) $b^2 = 8b - 12$

11) $m^2 + 7m = -12$

12) $9x^2 - 60 = 33x$

13) $8m^2 - 48 = 2 - 2m^2 - 5m$

14) $3r^2 + 25r + 32 = -3r^2 + 2 - 3r$

15) $3n^2 + 10n = 25$

16) $40n^2 - 96n + 44 = -4 - 4n$

Solve each equation by taking square roots.

17) $k^2 - 3 = -9$

18) $-5n^2 = -310$

19) $7b^2 + 10 = -137$

20) $5x^2 + 10 = 55$

21) $4v^2 + 8 = 332$

22) $9x^2 - 2 = -49$

23) $(x + 3)^2 + 4 = 16$

24) $(x - 5)^2 - 3 = -19$

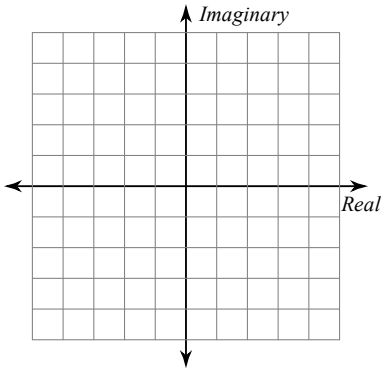
Find the absolute value of each complex number.

25) $|7i|$

26) $|10 - 6i|$

Graph each number in the complex plane.

27) $5 + 4i$



Simplify.

28) $(-6 - 7i) + (-2 + 4i)$

29) $(4 - 7i) - (-1 + 2i)$

30) $(-1+8i)(-5+6i)$

31) $(-3+6i)(-6+5i)$

32) $(-7i)(6+3i)-(7i)(8i)$

33) $(4-4i)^2$

34) $\dfrac{-7}{-i}$

35) $\dfrac{7}{-7i}$

36) $\dfrac{6}{-6-2i}$

37) $\dfrac{6i}{-5+3i}$

38) $\dfrac{3+3i}{-5-3i}$

39) $\dfrac{5+2i}{-3-8i}$