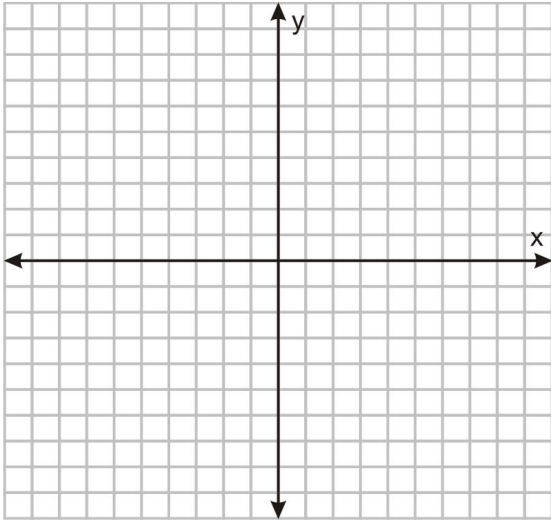


Review 4.1-4.4

1. Find the y-intercept, axis of symmetry, and the vertex of the function $f(x) = x^2 + 2x - 3$. Then graph the function labeling at least 2 points.



2. Determine whether the function $f(x) = 2x^2 - 8x + 9$ has a maximum or minimum and calculate that max/min.

3. Solve the equations below:

a. $x^2 - 2x = 3$

c. $3x^2 = 10 - 13x$

b. $x^2 + 4x - 7 = 0$

d. $x^2 + 4x = 45$

4. Using a calculator solve the equations below:

a. $f(x) = x^2 + 2x - 2$

b. $g(x) = x^2 + 7x - 4$

5. Solve $5x^2 + 100 = 0$

6. Solve $(x + 1)^2 = -4$

7. Write a quadratic equation with the given roots:

a. -6 and 2

b. $\frac{2}{3}$ and -4

8. Solve for x and y given $4x - 2 + 7yi = 6 - 14i$

9. Simplify the following and write answers in standard form ($a+bi$):

a. $\sqrt{-80}$

d. $(7 - 3i)(8 + 4i)$

b. $\sqrt{-6} \cdot \sqrt{-12}$

e. $\frac{2+i}{3-i}$

c. $(6 - 9i) - (-17 - 12i)$

