

## Lesson 1.2.2

**1-47.** V-shaped graph, opening upward. As  $x$  increases,  $y$  decreases left to right until  $x = -2$ , then  $y$  increases.  $x$ -intercepts:  $(-3, 0)$  and  $(-1, 0)$ .  $y$ -intercept:  $(0, 1)$ . Minimum output of  $-1$ . Special point (vertex) at  $(-2, -1)$ . Symmetric across the line  $x = -2$ .

**1-48. See below:**

- a. 1
- b. 2
- c.  $-11$
- d. 28

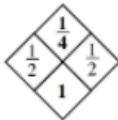
**1-49. See below:**

- a.  $x = -2$
- b.  $x = 1\frac{1}{2}$
- c.  $x = 0$
- d. no solution

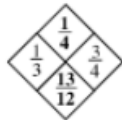
**1-50.** Possible points include:  $(-7, 7)$ ,  $(5, -2)$ ,  $(9, -5)$

**1-51. See answers in bold in diamonds below.**

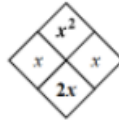
a.



b.



c.



d.

