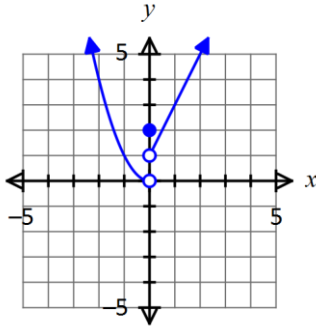


**Precalculus**

**1.3b HW – Selected Answers**

2.



Domain:  $(-\infty, \infty)$

Range:  $(0, \infty)$

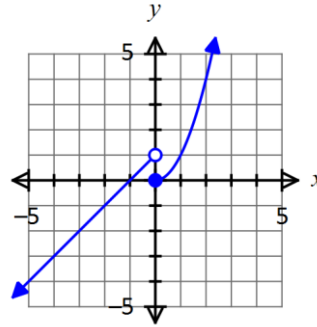
Intercept:  $(0, 3)$

$$f(-2) = 4$$

$$f(0) = 2$$

$$f(2) = 5$$

5.



Domain:  $(-\infty, \infty)$

Range:  $(-\infty, \infty)$

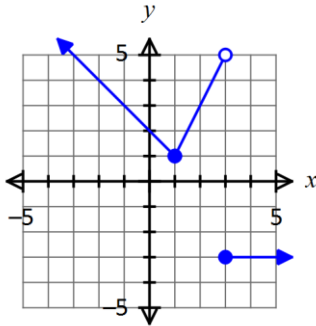
Intercepts:  $(-1, 0), (0, 0)$

$$f(-5) = -4$$

$$f(0) = 0$$

$$f(7) = 49$$

7.



Domain:  $[-4, \infty)$

Range:  $\{-3\} \cup [1, 6)$

Intercept:  $(0, 2)$

$$f(0) = 2$$

$$f(1) = 1$$

$$f(3) = -3$$

$$10. f(x) = \begin{cases} x & \text{if } -1 \leq x \leq 0 \\ 1 & \text{if } 0 < x \leq 2 \end{cases}$$

$$11. f(x) = \begin{cases} x+3 & \text{if } x \leq 0 \\ x^2+3 & \text{if } x > 0 \end{cases}$$

15.  $f(1)$  does not exist