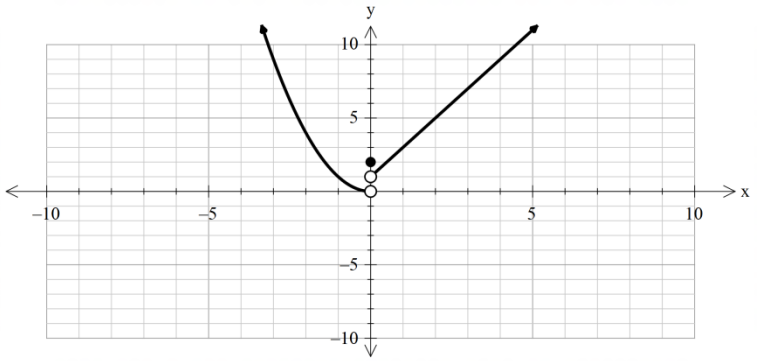
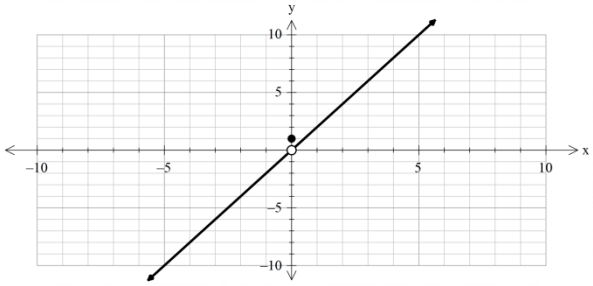
SM3H 2.6 odd answers

1.

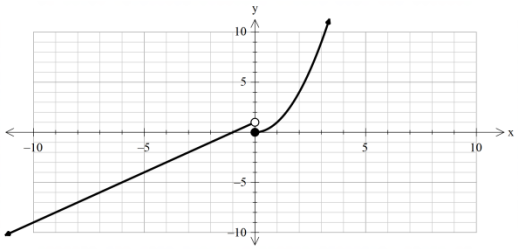


$f(-2) = 4$ $f(0) = 2$ $f(2) = 5$

3. a) Domain: (-∞, ∞) b) Range: (-∞,0) ∪ (0, ∞) c) Intercepts: (0,1) , no



5. a) Domain: (-∞, ∞) b) Range: (-∞,∞) c) Intercepts: (-1,0) (0,0) , no



7. $f(x) = \begin{cases} -x, & -1 \le x < 0 \\ \frac{1}{2}x, & 0 \le x \le 2 \end{cases}$

9. $f(x) = \begin{cases} 39.99, & 0 \le x \le 450 \\ 0.45x + 39.99, & x > 450 \end{cases}$

9a. $39.99

9b. $46.74

9c. $40.44

11. Domain: $(-\infty, -2) \cup (-2. \infty)$, Range: $[4, \infty)$

x-intercept: $(7, 0)$, y-intercept: $(0, -2)$

Increasing: $(5, \infty)$, Decreasing: $(-\infty, -2)$, Constant: $(-2, 5)$, Positive: $(-\infty, -2) \cup (7. \infty)$,

Negative: $(-2, 7)$, Max/Min: minimum: $(5, -4)$, Symmetry: none

End Behavior: $\lim_{x \to -\infty} f(x) = \infty$, $\lim_{x \to \infty} f(x) = \infty$