

## Answers to Even-numbered Homework Problems

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- Section 1.1

14.  $f(-6) = 3, f(-5) = -4, f(16) = 4.$

36.  $2x + h.$

38.  $\frac{-1}{x(x+h)}.$

64. a.  $\frac{52}{3}$       b.  $-\frac{15}{2}.$

- Section 1.4

30. a. Let  $x$  denote the number of people in the group and  $C(x)$  the corresponding total admission charge for the group. Then

$$C(x) = \begin{cases} 3.5x & \text{if } 0 \leq x < 50 \\ 3x & \text{if } x \geq 50 \end{cases}$$

b. \$21.50.

- Section 2.1

46. a.  $70q - q^2.$     b. \$50 per recorder.    c. \$30 per recorder. The profit is increasing.

- Section 2.6

36. a.  $(-1, -2)$  and  $(1, 2).$     b.  $(-2, -1)$  and  $(2, 1).$