

## Review Exercises (Ch. 4)

1)

- a)  $m = 4$
- b)  $m = -\frac{8}{3}$
- c)  $m = -1$
- d)  $m$  is undefined
- e)  $m = 0$
- f)  $m = -\frac{1}{2}$

3)

- a)  $-\frac{100}{3}$
- d)  $m = -\frac{100}{3}$

5)  $A \Leftrightarrow 4, B \Leftrightarrow 3, C \Leftrightarrow 1, D \Leftrightarrow 2$

7)

- a) 5 inches of snow
- b)  $2\frac{\text{in}}{\text{hr}}$
- c)  $y = 2x + 5$

9)

- a)  $y = 1800 - 300x$

11)

- a)  $y = 6x + 2$
- b)  $y = \frac{1}{3}x + 4$
- c)  $y = 2x + 1$
- d)  $y = \frac{1}{2}x - 5$
- e)  $y = x - 3$
- f)  $y = -x + 5$

13)  $y = \frac{3}{4}x - 3$

15)  $y = -\frac{100}{3}x + \frac{500,060}{3}$

17)

- a)  $m = 2\frac{\text{in}}{\text{hr}}$
- b)  $y = 2x$

19)

- a)  $y = 2x + 2$
- b)  $y = 4x - 17$
- c)  $y = -\frac{7}{2}x + 13$
- d)  $y = -\frac{1}{3}x + 4$

21)

- a) (5,0) (0,5)
  - b) (4,0) (0,-2)
  - c) (2,0) (0,3)
  - d) (20,0) (0,-2)
  - e) (2,0) (0,-12)
  - f)  $(\frac{9}{4}, 0)$   $(0, \frac{9}{5})$
- 23) (1,4)
- 25) Inconsistent System → No solution
- 27) Approximate Solution: (3.67, 1.33)      Exact Solution:  $(\frac{11}{3}, \frac{4}{3})$
- 29) Both newspapers charge the same amount for 10 lines of advertising.
- 31) (-2,-9)
- 33)  $(\frac{1}{2}, \frac{3}{2})$
- 35) (5,-1)
- 37) (0,-6)
- 39)
- a)  $x + y = 180$
  - b)  $y = 2x - 30$
  - c) One angle measures  $70^\circ$  and the other measures  $110^\circ$ .
- 41) The dimensions of the rectangle are 21.5 cm and 25.5 cm.