

**pg. 558 #7-25 odd**

- 7. Terms:  $2n$ ,  $-n$ ,  $-4$ ,  $7n$ ;  
Like terms:  $2n$ ,  $-n$ , and  $7n$
- 9. Terms:  $1.4y$ ,  $5$ ,  $-4.2$ ,  $-5y^2$ ,  $z$ ;  
Like terms:  $5$  and  $-4.2$
- 11.  $2x^2$  is not a like term, because  $x$  is squared. The like terms are  $3x$  and  $9x$ .
- 13.  $11x + 2$
- 15.  $-2.3v - 5$
- 17.  $3 - \frac{1}{2}y$
- 19.  $-p - 30$
- 21.  $10.2x$ ; The weight carried by each hiker is 10.2 pounds.
- 23. yes; Both expressions simplify to  $11x^2 + 3y$ .
- 25.  $(9 + 3x) \text{ ft}^2$

**pg. 564-565 #9-23 odd, 27-29**

- 9.  $2b + 9$
- 11.  $6x - 18$
- 13. 17
- 15.  $m + 1$
- 17.  $55w + 145$
- 19.  $-3g - 4$
- 21.  $-12y + 20$
- 23.  $-2c$
- 27. no; If the variable terms are opposites, the sum is a numerical expression.
- 28.  $8n$
- 29.  $0.25x + 0.15$

**pg. 574 #5-19 odd, & 23-29 odd**

5.  $a = 19$

7.  $k = -20$

9.  $c = 3.6$

11.  $q = -\frac{1}{6}$

13.  $g = -10$

15.  $y = -2.08$

17.  $q = -\frac{7}{18}$

19.  $w = -1\frac{13}{24}$

23.  $c + 10 = 3; c = -7$

25.  $p - 6 = -14; p = -8$

27.  $p + 2.54 = 1.38;$   
 $-\$1.16 \text{ million}$

29.  $x + 8 = 12; 4 \text{ cm}$

**pg. 580 #7-21 odd, 24-29 & 35**

7.  $h = 5$

9.  $n = -14$

11.  $m = -2$

13.  $x = -8$

15.  $p = -8$

17.  $n = 8$

19.  $g = -16$

21.  $f = 6\frac{3}{4}$

24.  $\frac{x}{-9} = -16; x = 144$

25.  $\frac{2}{5}x = \frac{3}{20}; x = \frac{3}{8}$

26.  $15x = -75; x = -5$

27.  $\frac{x}{-1.5} = 21; x = -31.5$

28.  $0.75n = 36; 48$  newspapers

29.  $\frac{x}{30} = 12\frac{3}{5}; 378$  ft

35.  $-1.26n = -10.08; 8$  days

**pg. 586 #13-37**

13.  $p = 3\frac{1}{2}$

14.  $x = -2\frac{3}{5}$

15.  $h = -3.5$

16.  $f = 3.1$

17.  $y = -6.4$

18. The steps are out of order.

$$-6 + 2x = -10$$

$$2x = -4$$

$$\frac{2x}{2} = \frac{-4}{2}$$

$$x = -2$$

19. Each side should be divided by  $-3$ , not  $3$ .

$$-3x + 2 = -7$$

$$-3x = -9$$

$$\frac{-3x}{-3} = \frac{-9}{-3}$$

$$x = 3$$

20.  $g = -5$

21.  $a = 1\frac{1}{3}$

22.  $z = -\frac{1}{4}$

23.  $b = 13\frac{1}{2}$

24.  $x = -\frac{3}{28}$

25.  $v = -\frac{1}{30}$

26.  $-4x + 35 = -1$ ;  
9 hours (10:00 P.M.)

27.  $2.5 + 2.25x = 9.25$ ; 3 games

28.  $30 + 0.25x = 59.5$ ;  
118 text messages

29.  $v = -5$

30.  $t = -13$

31.  $d = -12$

32.  $x = -1$

33.  $m = -9$

34.  $y = -4$

35. *Sample answer:* You travel halfway up a ladder. Then you climb down two feet and are 8 feet above the ground. How long is the ladder?  $x = 20$

36.  $12\frac{3}{4}$  ft

37. the initial fee

**pg. 589 #1-9 odd, 10-22 even, 25-31 odd, 33,34,36**

1. Terms:  $z$ ,  $8$ ,  $-4z$ ;

Like terms:  $z$  and  $-4z$

3. Terms:  $10x^2$ ,  $-y$ ,  $12$ ,  $-3x^2$ ;

Like terms:  $10x^2$  and  $-3x^2$

5.  $3.5r - 7$

7.  $3q + 21$

9.  $1.5n - 3.2$

10.  $4c + 5$

12.  $2(b + 4)$

14.  $1.7(j - 2)$

16.  $p = -1$

18.  $j = -20$

20.  $n = -\frac{1}{2}$

22.  $t = 4.9$

25.  $y = -49$

27.  $w = 50$

29.  $y = -5$

31.  $w = -0.5$

33.  $c = 7$

34.  $w = -\frac{8}{9}$

36.  $x = -3.5$