

**Practice Worksheet 3-1****Solving Equations:  $x + a = b$** **Solve each equation. Check your solution.**

1.  $m + 7 = 12$

2.  $h + 3 = -5$

3.  $y + 19 = 15$

4.  $x + (-12) = 4$

5.  $12 = t + 3$

6.  $z + (-7) = -8$

7.  $13 = z + 18$

8.  $-13 = 6 + m$

9.  $y + (-7) = -5$

10.  $m + 18 = -9$

11.  $c + (-11) = 0$

12.  $n + 25 = 26$

13.  $p + (-9) = -7$

14.  $17 + k = 11$

15.  $-8 + t = -12$

16.  $y + (-39) = 17$

17.  $u + 38 = 34$

18.  $47 = -19 + p$

19.  $35 = w + 35$

20.  $0 = -16 + l$

21.  $e + (-15) = 15$

22.  $19 = g + (-8)$

23.  $-15 = 15 + f$

24.  $-9 = -4 + s$

25.  $3 + r = -14$

26.  $-204 + n = 215$

**Practice Worksheet 3-1****Solving Equations:  $x + a = b$** **Solve each equation. Check your solution.**

1.  $m + 7 = 12$  **5**

2.  $h + 3 = -5$  **-8**

3.  $y + 19 = 15$  **-4**

4.  $x + (-12) = 4$  **16**

5.  $12 = t + 3$  **9**

6.  $z + (-7) = -8$  **-1**

7.  $13 = z + 18$  **-5**

8.  $-13 = 6 + m$  **-19**

9.  $y + (-7) = -5$  **2**

10.  $m + 18 = -9$  **-27**

11.  $c + (-11) = 0$  **11**

12.  $n + 25 = 26$  **1**

13.  $p + (-9) = -7$  **2**

14.  $17 + k = 11$  **-6**

15.  $-8 + t = -12$  **-4**

16.  $y + (-39) = 17$  **56**

17.  $u + 38 = 34$  **-4**

18.  $47 = -19 + p$  **66**

19.  $35 = w + 35$  **0**

20.  $0 = -16 + l$  **16**

21.  $e + (-15) = 15$  **30**

22.  $19 = g + (-8)$  **27**

23.  $-15 = 15 + f$  **-30**

24.  $-9 = -4 + s$  **-5**

25.  $3 + r = -14$  **-17**

26.  $-204 + n = 215$  **419**

**Practice Worksheet 3-2****Solving Equations:  $x - b = c$** **Solve each equation. Check your solution.**

1.  $x - 12 = 10$

2.  $x - 15 = -6$

3.  $y - (-13) = 14$

4.  $z - (-12) = -28$

5.  $n - 7 = 11$

6.  $f + (-8) = 14$

7.  $z + (-6) = -7$

8.  $r + (-12) = 17$

9.  $m - (-14) = -17$

10.  $h - (-6) = 6$

11.  $12 = m - 4$

12.  $-14 = z - (-6)$

13.  $-13 = t - (-8)$

14.  $15 = c - 40$

15.  $k - 17 = -8$

16.  $-54 = c - 38$

17.  $u - (-35) = 12$

18.  $f - (-19) = -15$

19.  $e - 39 = 19$

20.  $i - 7 = -16$

21.  $0 = j - 100$

22.  $w - 12 = -12$

23.  $t - (-47) = 61$

24.  $-80 = b - 91$

25.  $l - 13 = -19$

26.  $j - (-8) = -13$

**Practice Worksheet 3-2****Solving Equations:  $x - b = c$** *Solve each equation. Check your solution.*

1.  $x - 12 = 10$  **22**

2.  $x - 15 = -6$  **9**

3.  $y - (-13) = 14$  **1**

4.  $z - (-12) = -28$  **-40**

5.  $n - 7 = 11$  **18**

6.  $f + (-8) = 14$  **22**

7.  $z + (-6) = -7$  **-1**

8.  $r + (-12) = 17$  **29**

9.  $m - (-14) = -17$  **-31**

10.  $h - (-6) = 6$  **0**

11.  $12 = m - 4$  **16**

12.  $-14 = z - (-6)$  **-20**

13.  $-13 = t - (-8)$  **-21**

14.  $15 = c - 40$  **55**

15.  $k - 17 = -8$  **9**

16.  $-54 = c - 38$  **-16**

17.  $u - (-35) = 12$  **-23**

18.  $f - (-19) = -15$  **-34**

19.  $e - 39 = 19$  **58**

20.  $i - 7 = -16$  **-9**

21.  $0 = j - 100$  **100**

22.  $w - 12 = -12$  **0**

23.  $t - (-47) = 61$  **14**

24.  $-80 = b - 91$  **11**

25.  $l - 13 = -19$  **-6**

26.  $j - (-8) = -13$  **-21**

# Practice Worksheet 2-4

## Solving Division and Multiplication Equations

Solve each equation. Check your solution.

1.  $12x = 36$

2.  $8y = 96$

3.  $48 = 6y$

4.  $54 = 9w$

5.  $a \div 3 = 15$

6.  $b \div 7 = 21$

7.  $16y = 144$

8.  $14b = 168$

9.  $19z = 171$

10.  $\frac{a}{12} = 16$

11.  $\frac{c}{9} = 21$

12.  $\frac{s}{6} = 12$

13.  $21d = 147$

14.  $125 \div 5 = a$

15.  $63f = 945$

16.  $\frac{h}{0.3} = 19$

17.  $\frac{k}{2.7} = 21$

18.  $\frac{m}{18} = 39$

19.  $8.34x = 25.02$

20.  $1.2y = 2.76$

21.  $3.4t = 8.5$

22.  $y = 17 \cdot 3$

23.  $2.6v = 9.62$

24.  $18t = 3.6$

25.  $\frac{x}{1.8} = 72$

26.  $\frac{n}{5} = 16.4$

27.  $5.25a = 21$

28.  $\frac{s}{1.5} = 24$

29.  $6p = 17.94$

30.  $\frac{10}{1.6} = m$

## Practice Worksheet 2-4

### Solving Division and Multiplication Equations

Solve each equation. Check your solution.

1.  $12x = 36$   
**3**

2.  $8y = 96$   
**12**

3.  $48 = 6y$   
**8**

4.  $54 = 9w$   
**6**

5.  $a \div 3 = 15$   
**45**

6.  $b \div 7 = 21$   
**147**

7.  $15y = 144$   
**9**

8.  $14b = 168$   
**12**

9.  $19z = 171$   
**9**

10.  $\frac{a}{12} = 16$   
**192**

11.  $\frac{c}{9} = 21$   
**189**

12.  $\frac{s}{6} = 12$   
**72**

13.  $21d = 147$   
**7**

14.  $125 \div 5 = a$   
**25**

15.  $63f = 945$   
**15**

16.  $\frac{h}{0.3} = 19$   
**5.7**

17.  $\frac{k}{2.7} = 21$   
**56.7**

18.  $\frac{m}{18} = 39$   
**702**

19.  $8.34x = 25.02$   
**3**

20.  $1.2y = 2.76$   
**2.3**

21.  $3.4t = 8.5$   
**2.5**

22.  $y = 17 \cdot 3$   
**51**

23.  $2.6v = 9.62$   
**3.7**

24.  $18t = 3.6$   
**0.2**

25.  $\frac{x}{1.8} = 72$   
**129.6**

26.  $\frac{n}{5} = 16.4$   
**82**

27.  $5.25a = 21$   
**4**

28.  $\frac{s}{1.5} = 24$   
**36**

29.  $6p = 17.94$   
**2.99**

30.  $\frac{10}{1.6} = m$   
**6.25**

## Practice Worksheet 2-3

### Solving Subtraction and Addition Equations

Solve each equation. Check your solution.

1.  $62 - 35 = x$

2.  $y + 16 = 47$

3.  $z - 12 = 52$

4.  $a - 12 = 13$

5.  $16 = s + 9$

6.  $12 = t - 4$

7.  $22 = c - 12$

8.  $34 = d + 16$

9.  $20 + n = 40$

10.  $p - 75 = 156$

11.  $71 + 56 = s$

12.  $15 + 72 = y$

13.  $12 + n = 16$

14.  $14 + q = 36$

15.  $r - 18 = 36$

16.  $f = 8.6 + 9.7$

17.  $846 = n - 37$

18.  $947 = p - 43$

19.  $g - 6.3 = 9.5$

20.  $h - 3.7 = 6.8$

21.  $125 + y = 250$

22.  $q = 387 + 221$

23.  $7.36 + w = 8.94$

24.  $2.17 + k = 4.19$

## Practice Worksheet 2-3

### Solving Subtraction and Addition Equations

Solve each equation. Check your solution.

1.  $62 - 35 = x$     **27**

2.  $y + 16 = 47$     **31**

3.  $z - 12 = 52$     **64**

4.  $a - 12 = 13$     **25**

5.  $16 = s + 9$     **7**

6.  $12 = t - 4$     **16**

7.  $22 = c - 12$     **34**

8.  $34 = d + 16$     **18**

9.  $20 + n = 40$     **20**

10.  $p - 75 = 156$     **231**

11.  $71 + 56 = s$     **127**

12.  $15 + 72 = y$     **87**

13.  $12 + n = 16$     **4**

14.  $14 + q = 36$     **22**

15.  $r - 18 = 36$     **54**

16.  $f = 8.6 + 9.7$     **18.3**

17.  $846 = n - 37$     **883**

18.  $947 = p - 43$     **990**

19.  $g - 6.3 = 9.5$     **15.8**

20.  $h - 3.7 = 6.8$     **10.5**

21.  $125 + y = 250$     **125**

22.  $q = 387 + 221$     **608**

23.  $7.36 + w = 8.94$     **1.58**

24.  $2.17 + k = 4.19$     **2.02**



**Practice Worksheet 7-2****Solving Two-Step Equations***Solve each equation. Check your solution.*

1.  $6x + 8 = 20$

2.  $-10 - k = 36$

3.  $15 = 7 - y$

4.  $15 + 4g = -33$

5.  $8 - z = 21$

6.  $-9x - 36 = 72$

7.  $4 - 5c = 64$

8.  $8h + 7 = -113$

9.  $15d - 21 = 564$

10.  $2x + 5 = 5$

11.  $14 = 27 - x$

12.  $44 = -4 + 8p$

13.  $3 + 6u = -63$

14.  $33 = 5i - 12$

15.  $19 = -3a - 5$

16.  $-21 - 15m = 219$

17.  $\frac{x}{12} - 15 = 31$

18.  $6 - 5j = -94$

19.  $-\frac{t}{5} - 3 = 17$

20.  $15 + \left(-\frac{b}{4}\right) = 29$

21.  $-\frac{k}{7} = 36$

22.  $\frac{b}{15} = -30$

23.  $-8 + \left(-\frac{c}{4}\right) = 48$

24.  $-2d + 7 = 13$

25.  $-\frac{e}{5} - 12 = -3$

26.  $9 = -\frac{m}{2} + 14$

27.  $-11 + \frac{z}{6} = 0$

28.  $\frac{t+2}{3} = -5$

29.  $\frac{5+r}{-2} = -6$

30.  $\frac{f-6}{5} = 0$

31.  $\frac{s-8}{-8} = -1$

32.  $-10 = \frac{a+3}{3}$

33.  $-16 = \frac{c-6}{-3}$

**Practice Worksheet 7-2****Solving Two-Step Equations****Solve each equation. Check your solution.**

1.  $6x + 8 = 20$   
**2**

2.  $-10 - k = 36$   
**-46**

3.  $15 = 7 - y$   
**-8**

4.  $15 + 4g = -33$   
**-12**

5.  $8 - z = 21$   
**-13**

6.  $-9x - 36 = 72$   
**-12**

7.  $4 - 5c = 64$   
**-12**

8.  $8h + 7 = -113$   
**-15**

9.  $15d - 21 = 564$   
**39**

10.  $2x + 5 = 5$   
**0**

11.  $14 = 27 - x$   
**13**

12.  $44 = -4 + 8p$   
**6**

13.  $3 + 6u = -63$   
**-11**

14.  $33 = 5i - 12$   
**9**

15.  $19 = -3a - 5$   
**-8**

16.  $-21 - 15m = 219$   
**-16**

17.  $\frac{x}{12} - 15 = 31$   
**552**

18.  $6 - 5j = -94$   
**20**

19.  $-\frac{t}{5} - 3 = 17$   
**-100**

20.  $15 + \left(-\frac{b}{4}\right) = 29$   
**-56**

21.  $-\frac{k}{7} = 36$   
**-252**

22.  $\frac{b}{15} = -30$   
**-450**

23.  $-8 + \left(-\frac{c}{4}\right) = 48$   
**-224**

24.  $-2d + 7 = 13$   
**-3**

25.  $-\frac{e}{5} - 12 = -3$   
**-45**

26.  $9 = -\frac{m}{2} + 14$   
**10**

27.  $-11 + \frac{z}{6} = 0$   
**66**

28.  $\frac{t+2}{3} = -5$   
**-17**

29.  $\frac{5+r}{-2} = -6$   
**7**

30.  $\frac{f-6}{5} = 0$   
**6**

31.  $\frac{s-8}{-8} = -1$   
**16**

32.  $-10 = \frac{a+3}{3}$   
**-33**

33.  $-16 = \frac{c-6}{-3}$   
**54**

# Practice Worksheet 2-7

## Solving Two-Step Equations

Tell the first step you would do to solve each equation. Then solve the equation. Check your solution.

1.  $8x + 3 = 35$

2.  $2y - 9 = 9$

3.  $6a + 12 = 42$

4.  $\frac{b}{4} - 2 = 8$

5.  $\frac{w}{2} + 5 = 10$

6.  $\frac{c}{7} - 3 = 0$

7.  $8 + 5d = 53$

8.  $12f - 9 = 27$

9.  $7 + 8g = 87$

10.  $6h + 3.7 = 51.7$

11.  $7z - 9.4 = 11.6$

12.  $4g + 0.7 = 36.7$

Solve each equation. Check your solution.

13.  $2y - 3 = 9$

14.  $6c + 4 = 58$

15.  $9d - 8 = 154$

16.  $9 + \frac{r}{5} = 15$

17.  $\frac{s}{3} - 7 = 7$

18.  $\frac{t}{6} + 12 = 24$

19.  $74 = 14 + 5k$

20.  $79 = 6t + 7$

21.  $51 = 4m - 13$

22.  $10 = 6 + \frac{t}{8}$

23.  $4 = \frac{s}{5} - 16$

24.  $\frac{u}{8} + 15 = 27$

25.  $6x + 1.2 = 4.2$

26.  $8y - 4.6 = 68.2$

27.  $10f - 0.5 = 22.5$

28.  $0.4m - 2.7 = 11.7$

29.  $1.2n + 3.6 = 14.4$

30.  $0.93 = 0.15 + 0.3w$

# Practice Worksheet 2-7

## Solving Two-Step Equations

Tell the first step you would do to solve each equation. Then solve the equation. Check your solution.

1.  $8x + 3 = 35$   
**sub. 3; 4**

2.  $2y - 9 = 9$   
**add 9; 9**

3.  $6a + 12 = 42$   
**sub. 12; 5**

4.  $\frac{b}{4} - 2 = 8$   
**add 2; 40**

5.  $\frac{w}{2} + 5 = 10$   
**sub. 5; 10**

6.  $\frac{c}{7} - 3 = 0$   
**add 3; 21**

7.  $8 + 5d = 53$   
**sub. 8; 9**

8.  $12f - 9 = 27$   
**add 9; 3**

9.  $7 + 8g = 87$   
**sub. 7; 10**

10.  $6h + 3.7 = 51.7$   
**sub. 3.7; 8**

11.  $7z - 9.4 = 11.6$   
**add 9.4; 3**

12.  $4g + 0.7 = 36.7$   
**sub. 0.7; 9**

Solve each equation. Check your solution.

13.  $2y - 3 = 9$  **6**

14.  $6c + 4 = 58$  **9**

15.  $9d - 8 = 154$  **18**

16.  $9 + \frac{r}{5} = 15$  **30**

17.  $\frac{s}{3} - 7 = 7$  **42**

18.  $\frac{t}{6} + 12 = 24$  **72**

19.  $74 = 14 + 5k$  **12**

20.  $79 = 6t + 7$  **12**

21.  $51 = 4m - 13$  **16**

22.  $10 = 6 + \frac{t}{8}$  **32**

23.  $4 = \frac{s}{5} - 16$  **100**

24.  $\frac{u}{8} + 15 = 27$  **96**

25.  $6x + 1.2 = 4.2$  **0.5**

26.  $8y - 4.6 = 68.2$  **9.1**

27.  $10f - 0.5 = 22.5$   
**2.3**

28.  $0.4m - 2.7 = 11.7$   
**36**

29.  $1.2n + 3.6 = 14.4$   
**9**

30.  $0.93 = 0.15 + 0.3w$   
**2.6**

**Practice Worksheet 7-4****Variables on Each Side of an Equation**

Solve each equation. Check your solution.

1.  $6n - 42 = 4n$

2.  $-3b = 96 + b$

3.  $6x = 2x - 8$

4.  $6r - 12 = 2r + 36$

5.  $21 - y = -87 - 2y$

6.  $-54 - 2v = -v + 21$

7.  $6 - 3y = y + 2$

8.  $2.4m + 24 = 6.4m$

9.  $7f + 18 = 4f - 33$

10.  $3k - 5 = 7k + 7$

11.  $7 + 6z = 8z - 13$

12.  $18d - 21 = 15d + 3$

13.  $12p = 6 - 3p$

14.  $7j - 21 = 3 + j$

15.  $9 + 3k = 2k - 12$

16.  $-45m + 68 = 84m - 61$

17.  $25c + 17 = 5c - 143$

18.  $4 - 2x = -5x - 1$

19.  $1.6 - n = 12.8 + 3n$

20.  $28 - 14z = -24 + 12z$

21.  $310s - 278 = 722 - 190s$

22.  $10 - h = 4h + 3$

23.  $23g - 500 = 73g - 32$

24.  $2r - 21.6 = 3r + 36$

25.  $0.3x - 15 = 0.2x - 5$

**Practice Worksheet 7-4****Variables on Each Side of an Equation****Solve each equation. Check your solution.**

1.  $6n - 42 = 4n$   
**21**

2.  $-3b = 96 + b$   
**-24**

3.  $6x = 2x - 8$   
**-2**

4.  $6r - 12 = 2r + 36$   
**12**

5.  $21 - y = -87 - 2y$   
**-108**

6.  $-54 - 2v = -v + 21$   
**-75**

7.  $6 - 3y = y + 2$   
**1**

8.  $2.4m + 24 = 6.4m$   
**6**

9.  $7f + 18 = 4f - 33$   
**-17**

10.  $3k - 5 = 7k + 7$   
**-3**

11.  $7 + 6z = 8z - 13$   
**10**

12.  $18d - 21 = 15d + 3$   
**8**

13.  $12p = 6 - 3p$   
 **$\frac{2}{5}$**

14.  $7j - 21 = 3 + j$   
**4**

15.  $9 + 3k = 2k - 12$   
**-21**

16.  $-45m + 68 = 84m - 61$   
**1**

17.  $25c + 17 = 5c - 143$   
**-8**

18.  $4 - 2x = -5x - 1$   
 **$-1\frac{2}{3}$**

19.  $1.6 - n = 12.8 + 3n$   
**-2.8**

20.  $28 - 14z = -24 + 12z$   
**2**

21.  $310s - 278 = 722 - 190s$   
**2**

22.  $10 - h = 4h + 3$   
 **$1\frac{2}{5}$**

23.  $23g - 500 = 73g - 32$   
 **$-9\frac{9}{25}$**

24.  $2r - 21.6 = 3r + 36$   
**-57.6**

25.  $0.3x - 15 = 0.2x - 5$   
**100**

# MOVING WORDS

Solve each equation in the top block and find your solution in the bottom block. Transfer the word from the top box to the corresponding bottom box. Keep working and you will get an interesting question "write" away.

1 $w + 8 = -3$ THAT	6 $-1 + x = -10$ OUTER	11 $100 = n + 20$ DOWN	16 $-15 + t = 60$ PEN
2 $x + 12 = 30$ AND	7 $h + 13 = 7$ NEW	12 $-14 = 3 + x$ ALSO	17 $32 = n + 5$ UPSIDE
3 $d + (-9) = -5$ YOU	8 $w + (-4) = 8$ OF	13 $28 = h + (-11)$ SEEN	18 $w + (-7) = -20$ WORDS
4 $12 + n = 7$ IN	9 $2 + x = 24$ SPACE	14 $-36 = -12 + n$ UNDERWATER	19 $52 = -48 + x$ WRITES
5 $-9 + x = 15$ THE	10 $-16 + d = 30$ HAVE	15 $w + 40 = -25$ LOTS	20 $15 + n = -15$ OTHER
46	4	39	-6
75	-11	100	-24
80	-5	-9	22
-17	-65	12	-30
			-13
			?

# What Happened After Chief Short Cake Died?

Solve each equation below. Draw a straight line connecting the dot by the equation to the dot by its solution. The line will cross a number and a letter. Put the letter in the matching numbered box at the bottom of the page.

<p>① <math>x - 15 = -8</math>      •</p> <p>② <math>w - 3 = 24</math>      •</p> <p>③ <math>x - 9 = -20</math>      •</p> <p>④ <math>h - (-8) = 3</math>      •</p> <p>⑤ <math>x - (-12) = -7</math>      •</p> <p>⑥ <math>15 = r - 6</math>      •</p> <p>⑦ <math>-5 = x - (-17)</math>      •</p> <p>⑧ <math>x + 80 = 40</math>      •</p> <p>⑨ <math>-16 + t = 7</math>      •</p> <p>⑩ <math>x + 9 + 12 = -3</math>      •</p> <p>⑪ <math>x + 5 - 11 = -1</math>      •</p> <p>⑫ <math>-24 + w + 8 = 4</math>      •</p> <p>⑬ <math>18 - 13 + n = -9</math>      •</p> <p>⑭ <math>40 = x + 6 - 28</math>      •</p> <p>⑮ <math>-7 = 8 - 50 + x</math>      •</p> <p>⑯ <math>23 + h - 9 = 2</math>      •</p> <p>⑰ <math>-10 = w - 32 + 6</math>      •</p> <p>⑱ <math>x - (-75) = 25</math>      •</p>		<p>• -22</p> <p>• 20</p> <p>• 7</p> <p>• 62</p> <p>• -50</p> <p>• 27</p> <p>• -5</p> <p>• 35</p> <p>• 21</p> <p>• -24</p> <p>• 16</p> <p>• -11</p> <p>• -40</p> <p>• 5</p> <p>• -12</p> <p>• -14</p> <p>• -19</p> <p>• 23</p>
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
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