

Reteaching 1-3**Writing and Evaluating Expressions**

Evaluate $a(b + 4) - c$, for $a = 2$, $b = 5$, and $c = 12$.

$$\begin{aligned} a(b + 4) - c \\ &= 2(5 + 4) - 12 \\ &= 2(9) - 12 \\ &= 18 - 12 \\ &= 6 \end{aligned}$$

Replace the variables.

Work within grouping symbols.

Multiply.

Subtract.

Evaluate each expression.

1. $2n - 7$, for $n = 8$

2. $4ab$, for $a = 2$ and $b = 5$

3. $\frac{x+y}{3}$, for $x = 7$ and $y = 8$

4. $2(m + n)$, for $m = 3$ and $n = 2$

5. $37 - 5h$, for $h = 7$

6. $\frac{6}{a}$, for $a = 3$ and $b = 7$

7. $4x + 5y - 3z$, for $x = 3$, $y = 4$, and $z = 2$

8. $15a - 2(b + c)$, for $a = 2$, $b = 3$, and $c = 4$

9. $7p + q(3 + r)$, for $p = 3$, $q = 2$, and $r = 1$

10. $\frac{36}{j} - 4(k + l)$, for $j = 2$, $k = 1$, and $l = 3$

11. $x + 3y - 4(z - 3)$, for $x = 4$, $y = 6$, and $z = 5$

12. $(4 + d) - e(9 - f)$, for $d = 7$, $e = 4$, $f = 8$

13. $3a - 2b + b(6 - 2)$, for $a = 4$, $b = 2$

14. $r(p + 3) + q(p - 1)$, for $p = 7$, $q = 4$, $r = 3$

Reteaching 1-5

Adding Integers

Use tiles and the rules for adding integers to find each sum.

a. $-4 + -3$

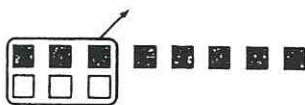


Four negative tiles plus 3 negative tiles gives 7 negative tiles.

$$-4 + -3 = -7$$

The sum of two negative integers is negative.

b. $-8 + 3$



Remove zero
pairs

Since the signs of the integers are different, you must remove zero pairs. The number of tiles left is the number of negative tiles $|-8|$ minus the number of positive tiles $|3|$. Thus, you can always subtract the absolute values of the numbers to find how many tiles will be left.

$$|-8| - |3| = 5$$

Since there are more negative tiles than positive tiles, $|-8| > |3|$, there are negative tiles left after you subtract zero pairs. Thus, the sum is negative.

$$-8 + 3 = -5$$

Use rules or tiles to find each sum.

1. $9 + (-12)$

2. $-4 + 10$

3. $-1 + (-8)$

4. $-6 + (-11)$

5. $-5 + 15$

6. $2 + (-14)$

7. $(-3) - 6$

8. $-(-2) + 9$

9. $(-2) - 4$

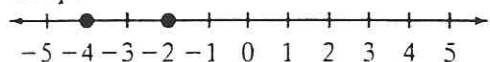
10. $-5 - (-4)$

11. $7 + (-2)$

12. $16 + (-6)$

Reteaching 1-4**Integers and Absolute Value****Compare. Use $>$, $<$, or $=$ to complete each statement.**

a. $-4 \square -2$

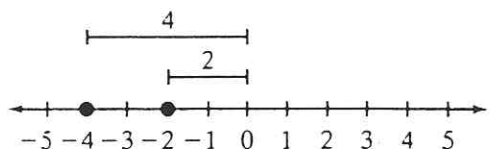
Graph -4 and -2 on the number line.

A number on the left is less than a number on the right.

Thus, -4 is less than -2 .

$-4 < -2$

b. $|-4| \square |-2|$

The *absolute value* of a number is its distance from zero on the number line.Thus $|-4| = 4$ and $|-2| = 2$.Since $4 > 2$, $|-4| > |-2|$ **Compare. Use $>$, $<$, or $=$ to complete each statement.**

1. $-3 \square -2$

2. $-5 \square 1$

3. $0 \square -2$

4. $1 \square 0$

5. $1 \square -1$

6. $-5 \square -3$

7. $|-3| \square 0$

8. $|-2| \square |-5|$

9. $|-3| \square 2$

10. $|-6| \square 6$

11. $|3| \square |-2|$

12. $|-7| \square 0$

13. $-3 \square |-3|$

14. $4 \square |-2|$

15. $|-2| \square 3$

16. $|-5| \square 3$

17. $|8| \square |-8|$

18. $-6 \square -4$

19. $5 \square |-4|$

20. $-3 \square -5$

21. $|2| \square |-3|$

22. $|-1| \square |1|$

23. $|-3| \square |-1|$

24. $-1 \square 2$

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Reteaching 1-6**Subtracting Integers**

- a. Find
- $-7 - (-3)$
- and
- $-7 + 3$
- . Compare.

$-7 - (-3)$



Start with 7 negative tiles and take away 3 negative tiles.

$-7 + 3$



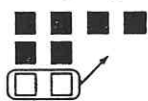
Add three positive tiles.
Remove zero pairs.

With both you start with 7 negative tiles. Taking away 3 negative tiles has the same effect as adding 3 positive tiles and removing zero pairs.

$-7 - (-3) = -7 + 3 = -4$

- b. Find
- $-4 - 2$
- and
- $-4 + (-2)$
- . Compare.

$-4 - 2$



$-4 + (-2)$



With both you start with 4 negative tiles. Adding two zero pairs and taking away two positive tiles has the same effect as adding two negative tiles.

$-4 - 2 = -4 + (-2) = -6$

Use rules for subtracting integers to find each difference. Use tiles to help.

1. $-5 - (-3) = -5 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2. $-8 - 6 = -8 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3. $3 - (-9) = 3 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4. $-2 - (-7) = -2 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5. $4 - 10 = 4 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6. $1 - (-6) = 1 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7. $-9 - 5 = -9 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8. $-6 - (-2) = -6 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

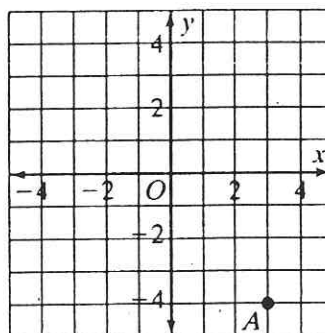
9. $7 - 8 = 7 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Reteaching 1-10

The Coordinate Plane

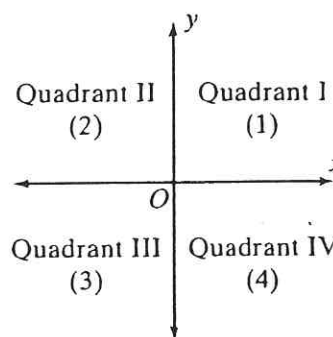
Write the coordinates of point A.

Point A is 3 units to the right of the y-axis. So the x-coordinate is 3. It is 4 units below the x-axis. So the y-coordinate is -4 . The coordinates of point A are $(3, -4)$.



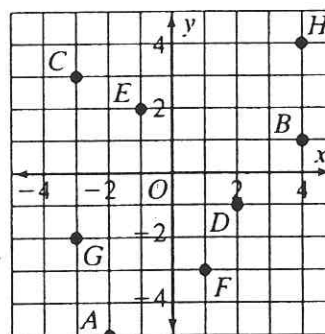
In which quadrant is point A located?

Compare the point to the diagram. Point A is in the fourth quadrant.



Write the coordinates of each point.

- | | |
|------------|------------|
| 1. A _____ | 2. B _____ |
| 3. C _____ | 4. D _____ |
| 5. E _____ | 6. F _____ |
| 7. G _____ | 8. H _____ |



In which quadrant does each point lie?

- | | |
|-------------|-------------|
| 9. A _____ | 10. B _____ |
| 11. C _____ | 12. D _____ |
| 13. E _____ | 14. F _____ |
| 15. G _____ | 16. H _____ |

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Reteaching 2-3

Simplifying Variable Expressions

Simplify $5n + (-n - 4)(-2)$.

$$5n + (-n - 4)(-2)$$

$$= 5n + (-n)(-2) - 4(-2)$$

$$= 5n + 2n + 8$$

$$= (5 + 2)n + 8$$

$$= 7n + 8$$

Use the Distributive Property.

Multiply. Think of $-4(-2)$ as $+(-4)(-2)$.

Use the Distributive Property to combine like terms.

Add.

Complete each equation.

1. $9a - 7a + 5$

$$= (9 - 7) \underline{\hspace{2cm}} + 5$$

$$= \underline{\hspace{2cm}} a + 5$$

2. $5k - 4 - 8k$

$$= 5k - 8 \underline{\hspace{2cm}} - 4$$

$$= (5 - 8) \underline{\hspace{2cm}} - 4$$

$$= \underline{\hspace{2cm}} - 4$$

Simplify each expression.

3. $12a + 4 - 10a$

5. $2(n - 4) + 3$

7. $5(2y + 1) - 7y$

9. $8c + 5(c - 3)$

11. $q(-3) + 3(2 + q)$

13. $(-3)(1 - 2n) + 2(n + 4)$

4. $7 + x - 7x$

6. $-3(a + 5) + 9$

8. $2(4 - 3t) - (-3) + 2t$

10. $-2(-4 - 3s)$

12. $(3 + k)(-4) - 5k$

14. $9p - 3(5p + 2) + 6$

Reteaching 2-5**Solving Equations by Adding or Subtracting**

Solve $x - 9 = 2$ and $x + 8 = 3$.

Since the 9 is subtracted from x , do the inverse and add 9 to both sides of the equation.

$$x - 9 = 2$$

$$x - 9 + 9 = 2 + 9$$

$$x = 11$$

In $x + 8 = 3$, 8 is added to x . So, subtract 8 from both sides of the equation.

$$x + 8 = 3$$

$$x + 8 - 8 = 3 - 8$$

$$x = -5$$

Solve each equation.

1. $17 + m = 21$

2. $y - 34 = 43$

3. $t + 9 = -9$

4. $15 = z + 6$

5. $r + 7 = -16$

6. $68 = p - 41$

7. $144 + g = 78$

8. $311 = y - 281$

9. $-11 + b = -11$

10. $s + 31 = 14$

11. $24 = k - 2$

12. $8 + f = 30$

13. $37 = z - 3$

14. $a + 19 = -82$

15. $18 + n - 7 = 44$

16. $15 = 7 + h + 14$

Reteaching 2-6

Solving Equations by Multiplying or Dividing

Solve $4x = -32$.

$$4x = -32$$

$$\frac{4x}{4} = \frac{-32}{4} \quad \text{Since 4 is multiplied by } x, \text{ divide both sides of the equation by 4.}$$

$$x = -8$$

Solve $\frac{x}{-5} = -9$.

$$\frac{x}{-5} = -9$$

$$-5\left(\frac{x}{-5}\right) = -5(-9) \quad \text{Since } x \text{ is divided by } -5, \text{ multiply both sides of the equation by } -5.$$

$$x = 45$$

Solve each equation.

1. $7m = 35$

2. $\frac{b}{8} = -3$

3. $90 = 10k$

4. $1 = \frac{n}{14}$

5. $100 = -20n$

6. $\frac{p}{15} = 5$

7. $-87,654y = 0$

8. $\frac{m}{4} = -12$

9. $-10a = 10$

10. $\frac{z}{-4} = 16$

11. $350t = -700$

12. $11j = 121$

13. $\frac{r}{-7} = 13$

14. $-7,650 = 10c$

15. $23 = \frac{w}{3}$

16. $125 = 25g$

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Reteaching 3-5**Solving Equations by Adding or Subtracting Decimals**Solve the equation $n + 3.2 = -4.7$.

$$n + 3.2 = -4.7$$

$$n + 3.2 - 3.2 = -4.7 - 3.2 \quad \text{Subtract 3.2 from each side.}$$

$$n = -7.9 \quad \text{Simplify.}$$

Solve each equation.

1. $n - 17.9 = -31.05$

2. $h + (-8.5) = -0.6$

$$n = \underline{\hspace{2cm}}$$

3. $y - 33.4 = 81.9$

$$h = \underline{\hspace{2cm}}$$

4. $t + 18.5 = -41$

$$y = \underline{\hspace{2cm}}$$

5. $h + 20.4 = -15.7$

$$t = \underline{\hspace{2cm}}$$

6. $p - 1.1 = 4.4$

$$h = \underline{\hspace{2cm}}$$

7. $a + 106.7 = 62.3$

$$p = \underline{\hspace{2cm}}$$

8. $z - 241.6 = 32.7$

$$a = \underline{\hspace{2cm}}$$

$$z = \underline{\hspace{2cm}}$$

Reteaching 3-6

Solving Equations by Multiplying or Dividing Decimals

Solve the equations $0.7x = -2.8$ and $\frac{x}{1.5} = 0.2$.

$$0.7x = -2.8$$

$$\frac{0.7x}{0.7} = \frac{-2.8}{0.7}$$

$$x = -4$$

Write the equation.

Divide each side by 0.7.

Simplify.

$$\frac{x}{1.5} = 0.2$$

$$\frac{x}{1.5}(1.5) = 0.2(1.5)$$

$$x = 0.3$$

Write the equation.

Multiply each side by 1.5.

Simplify.

Solve each equation.

1. $4x = -2.44$

2. $1.8x = 5.76$

$x =$ _____

3. $\frac{h}{-1.05} = -0.36$

$x =$ _____

4. $\frac{z}{-0.02} = 5.9$

$h =$ _____

5. $4.25y = 0.85$

$z =$ _____

6. $\frac{n}{-1.9} = 24.6$

$y =$ _____

7. $\frac{r}{8.04} = 1.55$

$n =$ _____

8. $11.32a = -39.62$

$r =$ _____

$a =$ _____

Reteaching 3-7

Using the Metric System

Complete each statement.

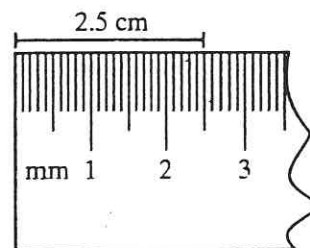
a. $2.5 \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$

The diagram shows

$2.5 \text{ cm} = \underline{25} \text{ mm.}$

You know $10 \text{ mm} = 1 \text{ cm}$.

Since a mm is smaller, it takes more of them to make the same length. This can help you remember to *multiply* by 10.



b. $347 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

You know $1,000 \text{ g} = 1 \text{ kg}$.

A kilogram is heavier than a gram, so it takes fewer to equal the same weight as 347 g. Thus, divide by 1,000 by moving the decimal point 3 places to the left.

$347 \text{ g} = \underline{0.347} \text{ kg}$

Complete each statement.

1. $\underline{\hspace{2cm}} \text{ mL} = 6.9 \text{ L}$

2. $5.62 \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$

3. $5,346 \text{ m} = \underline{\hspace{2cm}} \text{ km}$

4. $246 \text{ mg} = \underline{\hspace{2cm}} \text{ g}$

5. $890 \text{ cm} = \underline{\hspace{2cm}} \text{ m}$

6. $473 \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$

7. $9.4 \text{ L} = \underline{\hspace{2cm}} \text{ mL}$

8. $29 \text{ cg} = \underline{\hspace{2cm}} \text{ g}$

9. $2.1 \text{ km} = \underline{\hspace{2cm}} \text{ m}$

10. $1.65 \text{ L} = \underline{\hspace{2cm}} \text{ cL}$

11. $37 \text{ L} = \underline{\hspace{2cm}} \text{ mL}$

12. $87.5 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

13. $797 \text{ mm} = \underline{\hspace{2cm}} \text{ m}$

14. $1.75 \text{ km} = \underline{\hspace{2cm}} \text{ cm}$

15. $3,926 \text{ mg} = \underline{\hspace{2cm}} \text{ g}$

16. $0.71 \text{ kL} = \underline{\hspace{2cm}} \text{ L}$

17. $9,836 \text{ cm} = \underline{\hspace{2cm}} \text{ km}$

18. $17.9 \text{ g} = \underline{\hspace{2cm}} \text{ mg}$

Reteaching 4-6

Rational Numbers

Evaluate $\frac{a+7}{b}$, for $a = 9$ and $b = -2$. Write in simplest form.

$$\frac{a+7}{b} = \frac{9+7}{-2}$$

Substitute.

$$= \frac{16}{-2}$$

Add.

$$= -8$$

Write in simplest form.

Evaluate. Write in simplest form.

1. $\frac{a}{b}$, for $a = -12$ and $b = 6$ _____

2. $\frac{m-n}{-4}$, for $m = -5$ and $n = 3$ _____

3. $\frac{2x-5}{y}$, for $x = 6$ and $y = 21$ _____

4. $\frac{h}{h^2-2}$, for $h = 4$ _____

5. $\frac{n}{2m-8}$, for $m = 2$ and $n = 10$ _____

6. $\frac{x}{3y+4}$, for $x = 4$ and $y = 6$ _____

7. $\frac{-r-s}{s+2}$, for $r = -4$ and $s = 2$ _____

8. $\frac{j^2-k}{k}$, for $j = 4$ and $k = -12$ _____

9. $\frac{10+f^2}{3f}$, for $f = 6$ _____

10. $\frac{z+2}{z^2-4}$, for $z = 6$ _____

11. $\frac{a^2+b^2}{2a+b}$, for $a = 4$ and $b = -3$ _____

12. $\frac{e}{f^2-2f+1}$, for $e = -6$ and $f = 5$ _____

13. $\frac{17-u^2}{v^2-4v}$, for $u = -3$ and $v = 2$ _____

14. $\frac{-50}{2x^2-3x+5}$, for $x = -1$ _____

15. $\frac{y^3-4y+6}{y^3}$, for $y = -2$ _____