

Bryant Middle School

8th grade



Summer Packet

MATH

Reteaching 1-5 Adding Integers

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

a. $-4 + -3$

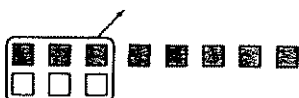


Four negative tiles plus 3 negative tiles gives 7 negative tiles.

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

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 1-6 Subtracting Integers

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

$$-7 - (-3)$$

$$-7 + 3$$



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

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 1-9 Multiplying and Dividing Integers

Multiplying and dividing integers is very similar to multiplying and dividing whole numbers. Just remember the two basic rules for determining the sign of the product or quotient.

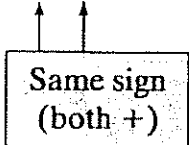
Rule 1: The product or quotient of two integers with the *same sign* is positive.

Rule 2: The product or quotient of two integers with *opposite signs* is negative.

Find each product or quotient.

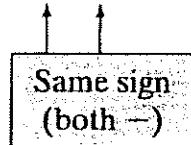
a. $5 \cdot 7$

$$5 \cdot 7 = 35$$



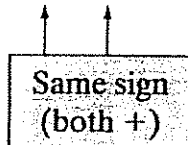
b. $-2(-3)$

$$-2(-3) = 6$$



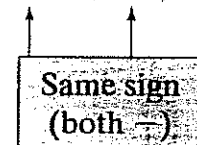
c. $15 \div 3$

$$15 \div 3 = 5$$



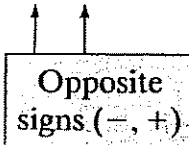
d. $-40 \div (-10)$

$$-40 \div (-10) = 4$$



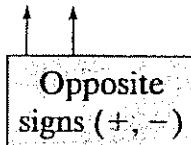
e. $-5 \cdot 7$

$$-5 \cdot 7 = -35$$



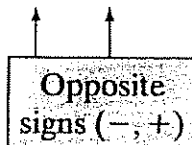
f. $2(-3)$

$$2(-3) = -6$$



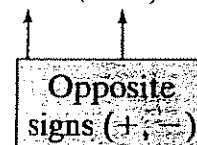
g. $-15 \div 3$

$$-15 \div 3 = -5$$



h. $40 \div (-10)$

$$40 \div (-10) = -4$$



Reteaching

Complete the table. The first row has been done for you.

	Same or Opposite Sign?	Sign of Product or Quotient	Product or Quotient
	Opposite	Negative	-60
1.	$-91 \div (-13)$		
2.	$6 \cdot 8$		
3.	$72 \div -9$		
4.	$-3(-6)$		
5.	$-18 \div 2$		
6.	$11 \cdot (-5)$		
7.	$52 \div 4$		
8.	$-12(6)$		

Reteaching 2-2 *The Distributive Property*

According to the Distributive Property, you distribute or “pass out” a multiplication to each part of a sum or difference in parentheses.

In $2(a + b) = 2a + 2b$, we “pass out” the 2 by multiplying it by both the a and the b .

Multiply $6(x - 9)$.

$$\begin{aligned} 6(x - 9) &= 6x - 6(9) \\ &= 6x - 54 \end{aligned}$$

Multiply $(4 - h)(-3)$.

$$\begin{aligned} (4 - h)(-3) &= 4(-3) - h(-3) \\ &= -12 - (-3h) \\ &= -12 + 3h \\ &= 3h - 12 \end{aligned}$$

Complete with the appropriate number or variable.

1. $12(5 + 9) = 12 \cdot 5 + \underline{\hspace{2cm}} \cdot 9$

2. $(3 - 8)7 = \underline{\hspace{2cm}} \cdot 7 - 8 \cdot \underline{\hspace{2cm}}$

3. $z(a - b - c) = \underline{\hspace{2cm}} \cdot a - z \cdot \underline{\hspace{2cm}} - \underline{\hspace{2cm}} \cdot \underline{\hspace{2cm}}$

4. $[14 + (-3)]7 = 14 \cdot \underline{\hspace{2cm}} + \underline{\hspace{2cm}} \cdot 7$

5. $p[(-3) + n] = p \cdot \underline{\hspace{2cm}} + \underline{\hspace{2cm}} \cdot \underline{\hspace{2cm}}$

Multiply each expression.

6. $4(x + 5) = \underline{\hspace{4cm}}$

7. $(6 - m)(-4) = \underline{\hspace{4cm}}$

8. $s(-6 + t) = \underline{\hspace{4cm}}$

9. $8(j - 2k + l) = \underline{\hspace{4cm}}$

10. $(z - 4)(-5) = \underline{\hspace{4cm}}$

11. $9[(-7) - y] = \underline{\hspace{4cm}}$

Reteaching 2-3 Simplifying Variable Expressions

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

$$\begin{aligned}
 &5n + (-n - 4)(-2) \\
 &= 5n + (-n)(-2) - 4(-2) \\
 &= 5n + 2n + 8 \\
 &= (5 + 2)n + 8 \\
 &= 7n + 8
 \end{aligned}$$

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

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.

$$\begin{aligned} x - 9 &= 2 \\ x - 9 + 9 &= 2 + 9 \\ x &= 11 \end{aligned}$$

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

$$\begin{aligned} x + 8 &= 3 \\ x + 8 - 8 &= 3 - 8 \\ x &= -5 \end{aligned}$$

Reteaching

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 $4x = -32$.

$4x = -32$

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

$x = -8$

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

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

$-5\left(\frac{x}{-5}\right) = -5(-9)$ Since x is divided by -5 , 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. $100 = -20m$

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. $125 = 25g$

Reteaching 4-6 Rational Numbers

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

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

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

$$= -8$$

Substitute.

Add.

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 $y = -2$ _____

Reteaching 5-3 Adding and Subtracting Fractions

Subtract $3\frac{1}{3} - 1\frac{5}{6}$.

Find a common denominator.

$$\begin{array}{r} 3\frac{1}{3} = \quad 3\frac{2}{6} = \\ - 1\frac{5}{6} = \quad - 1\frac{5}{6} = \\ \hline \end{array}$$

Rename $3\frac{2}{6}$ and subtract.

$$\begin{array}{r} 2\frac{8}{6} = \\ - 1\frac{5}{6} = \\ \hline 1\frac{3}{6} = 1\frac{1}{2} \text{ Simplify.} \end{array}$$

Note: $3\frac{2}{6} = 2 + 1 + \frac{2}{6} = 2 + \frac{6}{6} + \frac{2}{6} = 2 + \frac{8}{6} = 2\frac{8}{6}$

Find each difference.

1. $2\frac{4}{5} = 2 \frac{\square}{\square}$
 $- 1\frac{1}{10} = - 1 \frac{\square}{\square}$

2. $4\frac{2}{3} = 4 \frac{\square}{\square} = 3 \frac{\square}{\square}$
 $- 2\frac{11}{12} = - 2 \frac{\square}{\square} = - 2 \frac{\square}{\square}$

3. $5\frac{1}{9} = 5 \frac{\square}{\square} = 4 \frac{\square}{\square}$
 $- 2\frac{5}{6} = - 2 \frac{\square}{\square} = 2 \frac{\square}{\square}$

4. $7\frac{2}{15} = 7 \frac{\square}{\square} = 6 \frac{\square}{\square}$
 $- 1\frac{7}{10} = - 1 \frac{\square}{\square} = - 1 \frac{\square}{\square}$

5. $3\frac{4}{9} - 2\frac{1}{18}$ _____

6. $6\frac{1}{3} - 2\frac{2}{5}$ _____

7. $7\frac{2}{7} - 3\frac{5}{6}$ _____

8. $2\frac{7}{18} - 1\frac{3}{4}$ _____

9. $10\frac{3}{7} - 5\frac{1}{14}$ _____

10. $1\frac{5}{8} - 1\frac{1}{6}$ _____

11. $2\frac{1}{5} - 1\frac{4}{9}$ _____

12. $11\frac{3}{5} - 9\frac{17}{20}$ _____

13. $5\frac{5}{36} - 4\frac{8}{9}$ _____

14. $3\frac{2}{9} - 3\frac{2}{3}$ _____

Reteaching 5-4 Multiplying and Dividing Fractions

Find $3\frac{2}{3} \cdot 1\frac{4}{5}$.

$$3\frac{2}{3} \cdot 1\frac{4}{5} = \frac{11}{3} \cdot \frac{9}{5}$$

Change to improper fractions.

$$= \frac{11}{\cancel{3}^1} \cdot \frac{\cancel{9}^3}{5}$$

Divide the common factors.

$$= \frac{33}{5} = 6\frac{3}{5}$$

Simplify.

Find $-1\frac{1}{2} \div 2\frac{1}{4}$.

$$-1\frac{1}{2} \div 2\frac{1}{4} = -\frac{3}{2} \div \frac{9}{4}$$

Change to improper fractions.

$$= -\frac{\cancel{3}^1}{2} \cdot \frac{\cancel{4}^2}{9}$$

Multiply by the reciprocal.

$$= -\frac{1}{\cancel{2}^1} \cdot \frac{\cancel{2}^2}{3}$$

Divide the common factors.

$$= -\frac{2}{3}$$

Simplify.

Check your sign with the original problem. A negative times a positive has a negative product.

Reteaching

Find each product.

1. $\frac{7}{9} \cdot \frac{3}{7} =$ _____

2. $2\frac{1}{5} \cdot (-1\frac{1}{11}) =$ _____

3. $-3\frac{7}{8} \cdot 2\frac{2}{3} =$ _____

4. $5\frac{1}{7} \cdot 4\frac{2}{3} =$ _____

Find each quotient.

5. $-\frac{6}{11} \div \frac{4}{11} =$ _____

6. $1\frac{1}{6} \div 2\frac{1}{3} =$ _____

7. $-4\frac{1}{5} \div (-1\frac{3}{4}) =$ _____

8. $-6\frac{1}{8} \div \frac{7}{3} =$ _____

Reteaching 5-7 Solving Equations by Adding or Subtracting Fractions

Solve $h - 2\frac{3}{4} = -3\frac{1}{6}$.

$$h - 2\frac{3}{4} = -3\frac{1}{6}$$

$$h - 2\frac{3}{4} + 2\frac{3}{4} = -3\frac{1}{6} + 2\frac{3}{4}$$

$$h = -3\frac{2}{12} + 2\frac{9}{12}$$

$$h = -2\frac{14}{12} + 2\frac{9}{12}$$

$$h = -\frac{5}{12}$$

Add $2\frac{3}{4}$ to each side.

Use a common denominator.

Rename $-3\frac{2}{12}$ as $-2\frac{14}{12}$.Subtract $2\frac{14}{12} - 2\frac{9}{12}$. The sum is negative because $|-3\frac{1}{6}| > |2\frac{3}{4}|$.

Solve each equation.

1. $h + \frac{3}{4} = \frac{7}{8}$ _____

2. $e + 1\frac{13}{16} = 2\frac{5}{16}$ _____

3. $m + \frac{5}{8} = -\frac{3}{16}$ _____

4. $p - 4\frac{5}{12} = 2\frac{7}{12}$ _____

5. $x - \frac{5}{9} = \frac{5}{6}$ _____

6. $y - \frac{7}{8} = -\frac{15}{16}$ _____

7. $h + 2\frac{1}{2} = -1\frac{1}{4}$ _____

8. $n - 3\frac{2}{5} = -1\frac{7}{10}$ _____

9. $f + 4\frac{3}{8} = 2\frac{1}{2}$ _____

10. $b - 1\frac{2}{5} = 1\frac{4}{7}$ _____

Reteaching 5-8 Solving Equations by Multiplying Fractions

Solve $-4\frac{2}{5}x = 1\frac{1}{10}$.

$$-4\frac{2}{5}x = 1\frac{1}{10}$$

$$-\frac{22}{5}x = \frac{11}{10}$$

$$-\frac{5}{22} \cdot -\frac{22}{5}x = -\frac{5}{22} \cdot \frac{11}{10}$$

$$x = \frac{\cancel{5}}{\cancel{22}} \cdot \frac{\cancel{11}}{\cancel{10}} = -\frac{1}{4}$$

Write $-4\frac{2}{5}$ as $-\frac{22}{5}$ and $1\frac{1}{10}$ as $\frac{11}{10}$.

Multiply each side by $-\frac{5}{22}$, the reciprocal of $-\frac{22}{5}$.

Divide common factors and simplify.

Solve each equation.

1. $8x = 12$ _____

2. $\frac{1}{2}x = \frac{3}{4}$ _____

3. $-\frac{4}{5}y = -\frac{1}{3}$ _____

4. $5h = -\frac{10}{11}$ _____

5. $-\frac{3}{14}j = -1\frac{2}{7}$ _____

6. $\frac{4}{5}p = 2\frac{3}{10}$ _____

7. $1\frac{3}{7}m = \frac{6}{7}$ _____

8. $-\frac{5}{9}n = 2\frac{2}{3}$ _____

9. $4\frac{1}{2}x = 5\frac{5}{8}$ _____

10. $-1\frac{2}{3}k = 4\frac{1}{6}$ _____

Reteaching

Reteaching 6-1 Ratios and Unit Rates

One store has 6-packs of juice for \$.90. Another store has 8-packs of the same size juice cartons for \$1.12. Which is the better buy?

Find the unit rates.

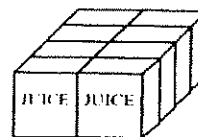
6-pack: $\frac{\text{price} \rightarrow \$.90}{\text{number} \rightarrow 6} = \$.15/\text{carton}$

8-pack: $\frac{\text{price} \rightarrow \$1.12}{\text{number} \rightarrow 8} = \$.14/\text{carton}$

The 8-pack has the lowest unit price.



6-pack
\$.90



8-pack
\$1.12

Reteaching

Find each unit rate.

1. \$91 in 14 h

2. 372 mi in 6 h

3. \$13.14 for 12 gal

4. 570 gal in 60 min

5. 54¢ for 4 oz

6. 592 words in 8 min

7. A 12 fl oz bottle of shampoo costs \$1.08 at Discount Mart. A 20 fl oz bottle of the same shampoo costs \$2.20 at Super Store. Find each unit rate and determine which is the better buy.

12 fl oz bottle: _____

20 fl oz bottle: _____

Better buy: _____

8. A school bus travels 53.3 mi on 6.5 gal of gas on its way to a museum for a field trip. On the return trip it takes the freeway and travels 53.2 mi on 5.6 gal of gas. Find the gas mileages of each trip and determine which is greater.

To the museum: _____

Returning from the museum: _____

Better mileage: _____

Reteaching 6-2 Proportions

Solve $\frac{x}{6} = \frac{10}{4}$

Method 1: Multiplication
Property of Equality

$$\frac{x}{6} = \frac{10}{4}$$

$$\frac{x}{6} \cdot 6 = \frac{10}{4} \cdot 6 \quad \text{Multiply each side by 6.}$$

$$x = \frac{60}{4} \quad \text{Simplify.}$$

$$x = 15$$

Method 2: cross products

$$\frac{x}{6} \times \frac{10}{4}$$

$$4x = 60 \quad \text{Find the cross products.}$$

$$\frac{4x}{4} = \frac{60}{4} \quad \text{Divide each side by 4.}$$

$$x = 15 \quad \text{Simplify.}$$

Solve each proportion. When necessary, round to the nearest hundredth.

1. $\frac{6}{p} = \frac{18}{42}$

2. $\frac{12}{21} = \frac{x}{14}$

3. $\frac{v}{9} = \frac{26}{6}$

4. $\frac{x}{9} = \frac{7}{12}$

5. $\frac{63}{7} = \frac{14}{16}$

6. $\frac{28}{15} = \frac{v}{25}$

7. $\frac{7}{20} = \frac{c}{70}$

8. $\frac{8}{3} = \frac{40}{k}$

9. $\frac{m}{54} = \frac{5}{12}$

10. $\frac{8}{w} = \frac{5}{24}$

11. $\frac{63}{18} = \frac{14}{z}$

12. $\frac{a}{70} = \frac{7}{5}$

13. $\frac{5}{13} = \frac{20}{7}$

14. $\frac{6}{i} = \frac{7}{36}$

15. $\frac{c}{21} = \frac{6}{20}$

16. $\frac{10}{e} = \frac{15}{27}$

Reteaching 6-3 Similar Figures and Scale Drawings

Reteaching

Similar triangles have the same shape but not necessarily the same size. In the figures, $\triangle ABC$ is similar to $\triangle DEF$.

The symbol \sim means "is similar to." $\triangle ABC \sim \triangle DEF$.

The lengths of the sides of similar triangles are always proportional to each other.

Find EF .

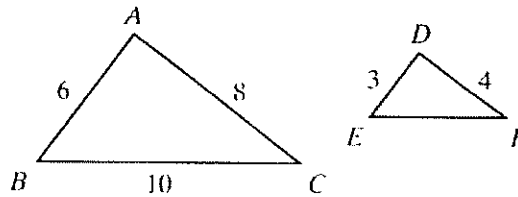
Substitute into $\frac{AC}{DF} = \frac{BC}{EF}$.

$\frac{8}{4} = \frac{10}{x}$ Write a proportion.

$8x = 40$ Find the cross products.

$\frac{8x}{8} = \frac{40}{8}$ Divide each side by 8.

$x = 5$ Simplify.



Use the properties of similar triangles to calculate the side lengths in each problem.

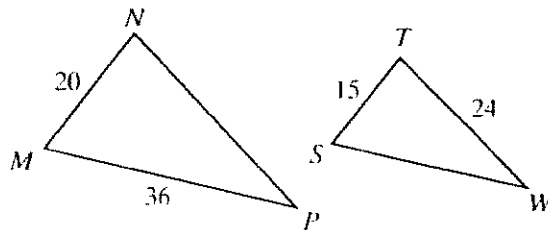
1. $\triangle MNP \sim \triangle STW$.

a. Complete: $\frac{MN}{ST} = \frac{MP}{\square}$; $\frac{MN}{ST} = \frac{\square}{TW}$

b. Substitute the correct lengths in the above proportions and solve.

$\frac{20}{15} = \frac{36}{\square}$; $\frac{20}{15} = \frac{\square}{24}$

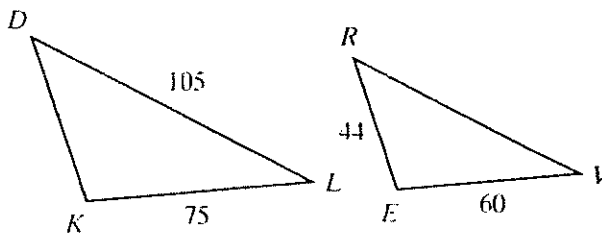
$SW = \underline{\hspace{2cm}}$ $NP = \underline{\hspace{2cm}}$



2. $\triangle DKL \sim \triangle REV$.

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

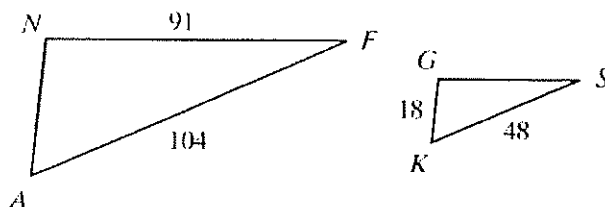
$RV = \underline{\hspace{2cm}}$



3. $\triangle ANF \sim \triangle KGS$.

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

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



Reteaching 6-6 Proportions and Percents

What percent of 98 is 24.5?

You can solve percent problems by writing and solving a proportion.

Any percent problem of the form $x\%$ of a is b can be written as:

$$\frac{x}{100} = \frac{b}{a}$$

$$\text{so } \frac{x}{100} = \frac{24.5}{98}$$

Write a proportion.

$$98x = 2,450$$

Write cross products.

$$\frac{98x}{98} = \frac{2,450}{98}$$

Divide each side by 98.

$$x = 25$$

Simplify.

24.5 is 25% of 98.

Write a proportion. Then solve. Where necessary, round to the nearest tenth or tenth of a percent.

1. What percent of 75 is 60?

2. What percent of 68 is 51?

3. What percent is 17 of 25?

4. What percent of 51 is 65?

5. What percent of 144 is 126?

6. What percent of 95 is 25?

7. Find 24% of 120.

8. Find 75% of 76.

9. Find 260% of 30.

10. Find $27\frac{1}{2}\%$ of 96.

11. Find 38% of 32.

12. Find 17% of 85.

13. 40% of x is 28. What is x ?

14. 9% of k is 27. What is k ?

15. 75% of p is 12. What is p ?

16. 0.9% of h is 276. What is h ?

17. 13% of r is 209. What is r ?

18. 68% of j is 44. What is j ?

Reteaching 7-2 Solving Multi-Step Equations

Solve $6 - 2(x + 5) = 8$

$$6 - 2(x + 5) = 8$$

$$6 - 2x - 10 = 8$$

$$-2x - 4 = 8$$

$$-2x - 4 + 4 = 8 + 4$$

$$-2x = 12$$

$$\frac{-2x}{-2} = \frac{12}{-2}$$

$$x = -6$$

Distribute.

Simplify. Think of $6 - 2x$ as $6 + (-2x)$. Then subtract $6 - 10$.

Add 4 to each side.

Simplify.

Divide each side by -2 .

Simplify.

Solve each equation.

1. $3(a - 4) = 9$

Distribute.

Add 12 to each side.

Simplify.

Divide each side by 3.

Simplify.

Solve each equation.

2. $n + 5n = 30$ $n =$ _____

3. $y - 4y = 33$ $y =$ _____

4. $12 = 4(b - 2)$ $b =$ _____

5. $-3(k - 4) = -6$ $k =$ _____

6. $m - 3m + 3 = 11$ $m =$ _____

7. $2(x - 9) + 5 = 1$ $x =$ _____

Reteaching 7-3 Multi-Step Equations With Fractions and Decimals

Solve $0.25x - 0.4 = 1.6$

You can clear the decimals first. Since 0.25 is the decimal with the greatest number of decimal places and $0.25 = \frac{25}{100}$, multiply each side by 100.

$$0.25x - 0.4 = 1.6$$

$$100(0.25x - 0.4) = 100(1.6)$$

$$25x - 40 = 160$$

$$25x - 40 + 40 = 160 + 40$$

$$25x = 200$$

$$\frac{25x}{25} = \frac{200}{25}$$

$$x = 8$$

Multiply each side by 100.

Distribute and simplify.

Add 40 to each side.

Simplify.

Divide each side by 25.

Simplify.

Solve each equation.

1. $0.8x + 2.1 = 5.3$

2. $0.5k - 3.4 = 0.1$

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

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

3. $2.7n + 4.1 = 36.5$

4. $0.96m - 1.8m = -12.6$

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

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

5. $0.7b + 6 - 0.3b = 6.8$

6. $1.4a + 3.5a - 4.3 = 44.7$

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

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

Reteaching 7-4 Write an Equation

Write an equation. Then solve.

Orlando worked for \$6/h one week and \$7/h the next week. He worked 5 more hours the second week than the first and earned \$347 for the 2 weeks of work. How many hours did he work each week.

Let h be the number of hours Orlando worked the first week.

Then he worked $h + 5$ hours the second week. He earned $6h$ dollars the first week.

Words Earnings week 1 + Earnings week 2 = Total earnings



Equation $6h$ + $7(h + 5)$ = 347

Now solve.

$$6h + 7(h + 5) = 347$$

$$6h + 7h + 35 = 347$$

$$13h + 35 = 347$$

$$13h + 35 - 35 = 347 - 35$$

$$13h = 312$$

$$\frac{13h}{13} = \frac{312}{13}$$

$$h = 24$$

Distribute.

Simplify.

Subtract 35 from each side.

Simplify.

Divide each side by 13.

Orlando worked 24 hours the first week. He worked $h + 5 = 24 + 5 = 29$ hours the second week.

Check: $24 \cdot 6 + 29 \cdot 7 = 144 + 203 = 347$.

Write an equation. Then solve.

- The sum of half of a number and 8 less than the number is 25.

- A triangle has two sides equal in length and a third side 5 in. longer than half the length of each of the other two sides. If the perimeter of the triangle is 50 in., how long is each side?

Reteaching 7-5 Solving Equations With Variables on Both Sides

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

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

$$4n - 20 + 2 = 3n - 4$$

$$4n - 18 = 3n - 4$$

$$4n - 3n - 18 = 3n - 3n - 4$$

$$n - 18 = -4$$

$$n - 18 + 18 = -4 + 18$$

$$n = 14$$

Distribute.

Simplify.

Subtract $3n$ from each side.

Simplify.

Add 18 to each side.

Simplify.

Solve each equation.

1. $7x + 9 = 4x$

2. $8m - 5 = 5m + 7$

$x =$ _____

$m =$ _____

3. $k + k + k = k + 18$

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

$k =$ _____

$n =$ _____

5. $4(y - 9) = 3(2y - 8)$

6. $6(z - 2) + 3 = 3z - 15$

$y =$ _____

$z =$ _____

7. $x + 7x + 15x = 29x + 18$

8. $8(7 - p) - 8 = -16(p - 2)$

$x =$ _____

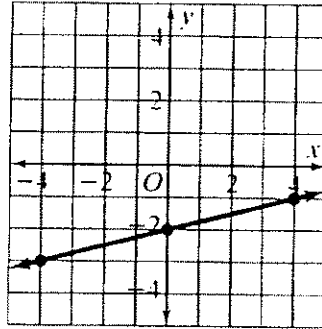
$p =$ _____

Reteaching 8-2 Equations With Two Variables

Graph $y = \frac{1}{4}x - 2$.

Make a table of ordered pairs. Then graph the ordered pairs and draw a line through the points. Choose values that make computations easy.

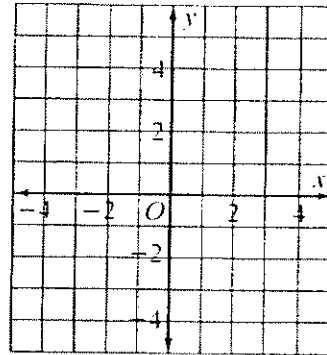
x	Substitute and Simplify $y = \frac{1}{4}x - 2$	(x, y)
0	$y = \frac{1}{4}(0) - 2 = 0 - 2 = -2$	$(0, -2)$
4	$y = \frac{1}{4}(4) - 2 = 1 - 2 = -1$	$(4, -1)$
-4	$y = \frac{1}{4}(-4) - 2 = -1 - 2 = -3$	$(-4, -3)$



Graph each equation.

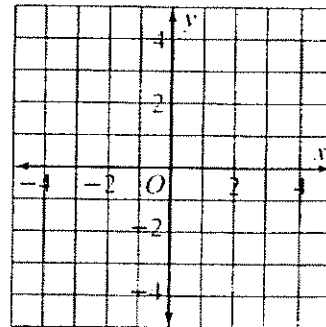
1. $y = \frac{3}{2}x - 1$

x	$y = \frac{3}{2}x - 1$	(x, y)
0		
-2		
4		



2. $y = x - 3$

x	$y = x - 3$	(x, y)
0		
4		
-1		



Reteaching 8-3 Slope and y-intercept

Find the slope of the line.

Find two points on the line whose coordinates are easy to read, like $(0, -2)$ and $(4, 1)$.

$$\text{slope} = \frac{\text{rise}}{\text{run}} = \frac{3}{4}$$

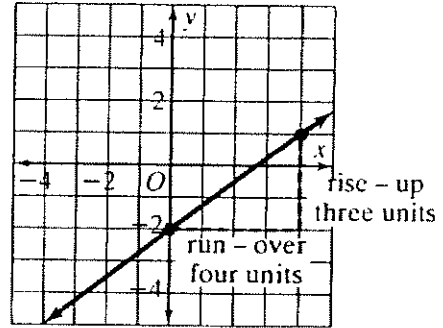
The slope is $\frac{3}{4}$.

You could also find the slope from just the coordinates $(0, -2)$ and $(4, 1)$.

$$\text{slope} = \frac{\text{difference in } y\text{-coordinates}}{\text{difference in } x\text{-coordinates}} = \frac{1 - (-2)}{4 - 0} = \frac{3}{4}$$

Since we wrote 1 from $(4, 1)$ first in the numerator, we must write 4 first in the denominator. We could put -2 and 0 first.

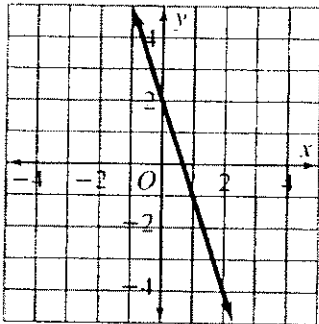
$$\text{slope} = \frac{-2 - 1}{0 - 4} = \frac{-3}{-4} = \frac{3}{4}$$



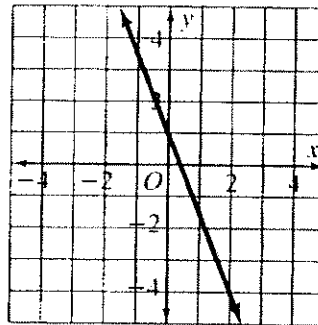
Reteaching

Find the slope of each line.

1. _____



2. _____



Find the slope of the line through each pair of points.

3. $A(8, 2), B(4, 1)$

4. $L(-3, 6), M(5, -1)$

5. $J(6, -2), K(4, 3)$

6. $P(3, -1), Q(5, 5)$

7. $S(4, 1), T(-9, 1)$

8. $G(-2, -7), H(-2, 0)$

Reteaching 8-4 Writing Rules for Linear Functions

Write a rule for the function.

x	$f(x)$
-2	-12
0	-2
2	8
4	18

As the x values increase by 2, the $f(x)$ values increase by 10. So $m = \frac{10}{2} = 5$. When $x = 0$, $f(x) = -2$. So $b = -2$. Substitute $m = 5$ and $b = -2$ into $f(x) = mx + b$.
 $f(x) = 5x + (-2)$
 $f(x) = 5x - 2$

Write a rule for each function.

1. _____

x	$f(x)$
-1	-7
0	0
1	7
2	14

2. _____

x	$f(x)$
-9	-17
0	-8
9	1
18	10

3. _____

x	$f(x)$
0	9
2	5
4	1
6	-3

4. _____

x	$f(x)$
-6	7
-3	8
0	9
3	10

5. _____

x	$f(x)$
-4	-6
0	-7
4	-8
8	-9

6. _____

x	$f(x)$
-12	-83
-6	-47
0	-11
6	25

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Reteaching 8-6 Solve by Graphing

The driver of a car slows to a stop. After 3 seconds the car is traveling 41 mi/h. After 5 seconds it is traveling 30 mi/h and after 8 seconds it is traveling 12 mi/h.

- Make a scatter plot of the data and draw a trend line. Plot the points (3, 41), (5, 30) and (8, 12). Draw a line through (5, 30) and (8, 12).
- About how fast was the car moving when the driver first applied the brakes?
When the time was 0, the speed was about 60. So the driver was moving about 60 mi/h.
- Write an equation for your trend line.

The y -intercept, b , is about 60. You can use the points (5, 30) and (8, 12) to find the slope.

$$m = \frac{\text{difference in } y\text{-values}}{\text{difference in } x\text{-values}} = \frac{12 - 30}{8 - 5} = \frac{-18}{3} = -6$$

Substitute $m = -6$ and $b = 60$ into $y = mx + b$.

$$y = mx + b$$

$$y = -6x + 60$$

- Use your equation to find about how long it took for the car to stop.
When the car stops, the speed, y , is zero.

$$y = -6x + 60$$

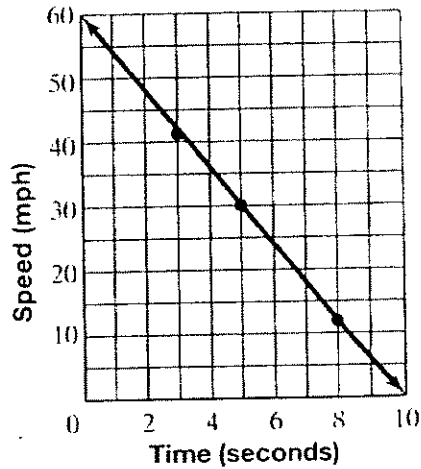
$$0 = -6x + 60$$

$$6x = 60$$

$$x = 10$$

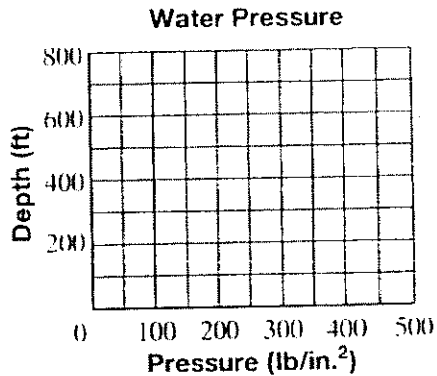
It took the car about 10 seconds to stop.

Braking Rates



The water pressure at a depth of 100 ft in the ocean is 45 lb/in.². At a depth of 500 ft the pressure is 225 lb/in.².

- Make a (pressure, depth) scatter plot of the data.
- Draw a trend line.
- Write an equation for your trend line.



- Use your equation to find the approximate depth where the pressure is 180 lb/in.².

- Use your equation to find the approximate pressure at a depth of 800 ft.

Reteaching 9-2 Angle Relationships and Parallel Lines

Find the measures of $\angle 1$ and $\angle 2$. Given: $r \parallel s$.

Write an equation and solve for x .

$$(5x + 7) + (15x - 7) = 180 \quad \text{These angles are supplementary.}$$

$$5x + 15x + 7 - 7 = 180 \quad \text{Simplify.}$$

$$20x = 180 \quad \text{Simplify.}$$

$$\frac{20x}{20} = \frac{180}{20} \quad \text{Divide each side by 20.}$$

$$x = 9 \quad \text{Simplify.}$$

Find the measure of the angle marked $(5x + 7)^\circ$ by substituting $x = 9$.

$$5x + 7 = 5(9) + 7 = 45 + 7 = 52$$

Since this angle and $\angle 1$ are vertical, they have the same measure.

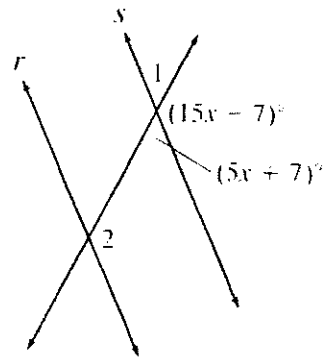
Thus, $m\angle 1 = 52^\circ$.

We can find the measure of $\angle 2$ several ways. The angle marked $(15x - 7)^\circ$ and $\angle 2$ are corresponding angles, so they have the same measure. We can find this measure by substituting $x = 9$ into $15x - 7$ or by realizing that this angle and $\angle 1$ are supplementary.

$$180 - 52 = 128$$

$$15x - 7 = 15(9) - 7 = 135 - 7 = 128$$

Either way, $m\angle 2 = 128^\circ$.



Use the figure at the right.

Given: $p \parallel q$.

- Write an equation.

- Find the value of x .

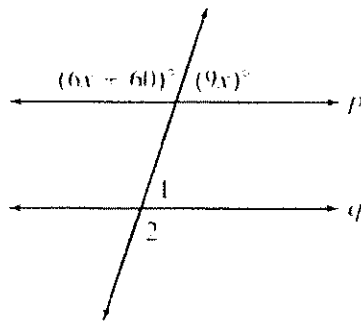
$x =$ _____

- Find $m\angle 1$.

$m\angle 1 =$ _____

- Find $m\angle 2$.

$m\angle 2 =$ _____



Reteaching 9-5 Congruence

List the congruent corresponding parts of the pair of triangles. Write a congruence statement for the triangles.

$\angle ACB \cong \angle ACD$ because both are right angles.

$\overline{BC} \cong \overline{DC}$ because they are marked.

$\overline{AC} \cong \overline{AC}$ because these are the same segment in each triangle.

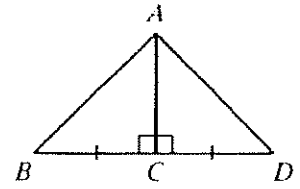
Thus, $\triangle ABC \cong \triangle ADC$ by SAS (side-angle-side).

The vertices must be listed in the same order that they correspond.

$$A \leftrightarrow A$$

$$B \leftrightarrow D$$

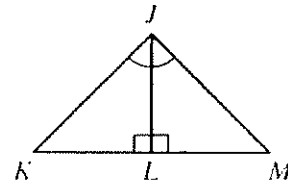
$$C \leftrightarrow C$$



List the congruent corresponding parts of each pair of triangles. Write a congruence statement for the triangles.

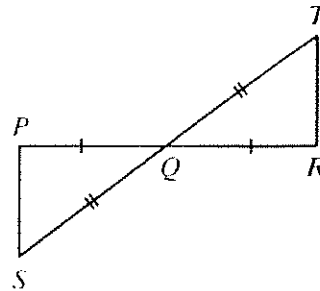
1. _____

 _____ by _____



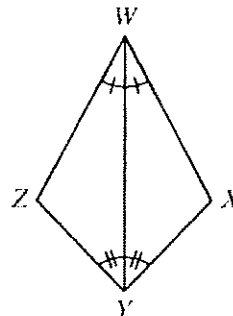
2. _____

 _____ by _____



3. _____

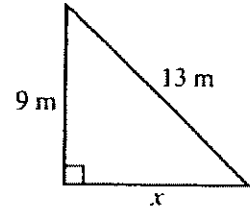
 _____ by _____



Reteaching

Reteaching 11-2 The Pythagorean Theorem

Find the missing length to the nearest tenth of a unit. The triangle is a right triangle. The side opposite the right angle is the hypotenuse and equals c in the Pythagorean formula. The other two sides are legs and equal a and b in the formula.



$a^2 + b^2 = c^2$ Use the Pythagorean Theorem.

$9^2 + x^2 = (13)^2$ Substitute 9 for a , x for b , and 13 for c .

$81 + x^2 = 169$ Simplify.

$81 - 81 + x^2 = 169 - 81$ Subtract 81 from each side to solve.

$x^2 = 88$ Simplify.

$x = \sqrt{88}$ Find the positive square root of each side.

Enter 88 then $\sqrt{\quad}$ into a calculator.

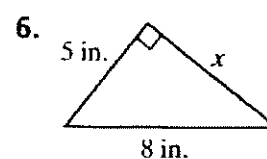
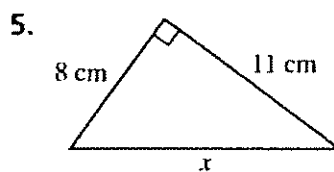
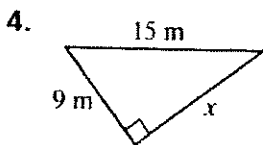
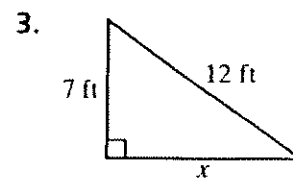
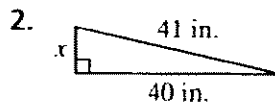
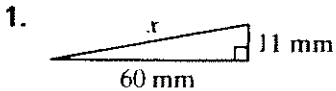
The value is 9.3808315.

$x \approx 9.4$ Round to the nearest tenth. Use the sign \approx for "is approximately equal to."

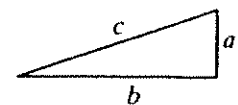
The length of x is about 9.4 m.

Reteaching

Find each missing length to the nearest tenth of a unit.



Use the triangle at the right. Find the missing length to the nearest tenth of a unit.



7. $a = 6$ in., $c = 14$ in.

$b \approx$ _____

8. $b = 22$ mm, $c = 25$ mm

$a \approx$ _____

9. $a = 31$ ft, $b = 55$ ft

$c \approx$ _____

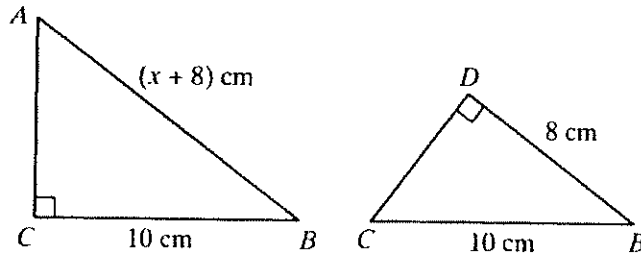
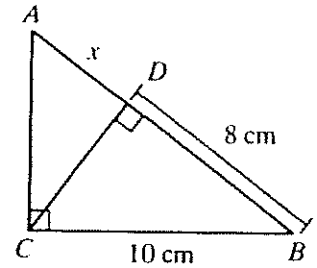
10. $a = 16$ cm, $c = 28$ cm

$b \approx$ _____

Reteaching 11-4 Write a Proportion

Write a proportion, and find the value of x given that $\triangle ABC \sim \triangle CBD$.

In similar triangles, corresponding sides are proportional. Thus, the first step is to decide which sides are proportional and can be used to find x . It is helpful to draw the triangles as separate figures.



Notice that the right angles are $\angle C$ and $\angle D$. So $C \leftrightarrow D$. The hypotenuses are \overline{AB} and \overline{CB} . So $\overline{AB} \leftrightarrow \overline{CB}$. The longer legs are \overline{BC} and \overline{BD} . So $\overline{BC} \leftrightarrow \overline{BD}$. You can also find these relationships in the similarity statement.

$$\text{So } \frac{AB}{CB} = \frac{BC}{BD}$$

Write corresponding sides in each ratio. Write sides in the same triangle in either the numerators or the denominators.

$$\frac{x + 8}{10} = \frac{10}{8}$$

$$AB = x + 8, CB = 10 = BC, BD = 8$$

$$8(x + 8) = 10 \cdot 10 \quad \text{Write cross products.}$$

$$8x + 64 = 100 \quad \text{Use the Distributive Property.}$$

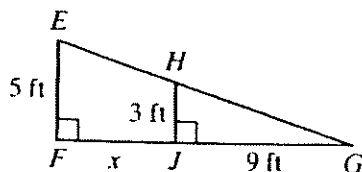
$$8x = 36 \quad \text{Subtract 64 from each side.}$$

$$x = 4.5 \quad \text{Divide each side by 8.}$$

The length of x is 4.5 cm.

Write a proportion to find the value of each x .

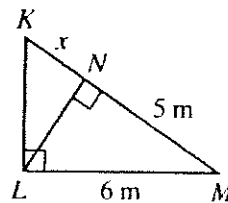
1. $\triangle EFG \sim \triangle HJG$



Proportion: _____

$$x \cdot 5 = \underline{\hspace{2cm}}$$

2. $\triangle KLM \sim \triangle LNM$



Proportion: _____

$$x \cdot 5 = \underline{\hspace{2cm}}$$

Reteaching 12-2 Box-and-Whisker Plots

Make a box-and-whisker plot for the data set.

Step 1: First list the data in order from least to greatest. Find the median.

24 28 34 36 42 | 45 48 52 61 63

Since there is an even number of percents (10), there are two middle numbers. Add them and divide by 2.

$$\frac{42 + 45}{2} = \frac{87}{2} = 43.5 \quad \text{The median is 43.5.}$$

45%	24%	52%	61%	28%
42%	34%	48%	63%	36%

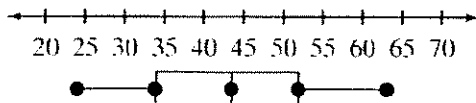
Step 2: Find the upper and lower quartiles.

The lower quartile is the median of the lower half. 24 28 34 36 42
The lower quartile is 34.

The upper quartile is the median of the upper half. 45 48 52 61 63
The upper quartile is 52.

Step 3: Draw a number line. Mark the least and greatest values, the median, and the quartiles. Draw a box from the first to the third quartiles. Draw whiskers from the least and greatest values to the box.

The data range from 24 to 63. A scale of 5 from 20 to 70 would have 11 marks.



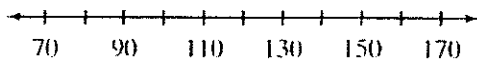
Reteaching

Make a box-and-whisker plot for each data set.

1. Area in 1,000 mi² of 13 western states.

122	164	71	98	84	147	114
111	98	85	104	71	77	

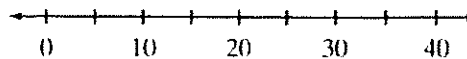
median: _____
lower quartile: _____
upper quartile: _____

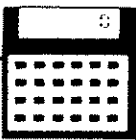


2. Percent of area that is inland water for 11 northeastern states.

13%	4%	26%	4%	32%	13%
15%	3%	21%	7%	21%	

median: _____
lower quartile: _____
upper quartile: _____



**Math Words**

acute angle uh KYOOT ANG gul (*n*) An angle that measures less than 90 degrees.

addend AD end (*n*) Any of the numbers to be added in an addition problem.

addition uh DIHSH un (*n*) The operation of combining two or more addends to get the total number, or sum.

angle ANG gul (*n*) A figure formed by the meeting of two rays at an endpoint.

arc ahrk (*n*) A part of a circle.

area AIR ee uh (*n*) The number of square units within a plane figure.

associative property uh SOH shee ay tiv PRAHP ur tee (*n*) A rule stating that when the grouping of three or more addends or factors changes, the sum or the product remains the same.

average AV ur ij (*n*) The quotient found when the sum of a set of numbers is divided by the number of addends.

axis AK sihs (*n*) One of the perpendicular lines on a graph. The horizontal line is the *x* axis. The vertical line is the *y* axis.

calculator KAL kyuh lay tur (*n*) A device that performs mathematical computations.

Celsius scale SEL see uhs skayl (*n*) The metric temperature scale in which 0°C is the freezing point of water and 100°C is the boiling point.

centimeter SEN tuh mee tur (*m*) A metric unit of length equal to one hundredth of a meter.

chord kord (*n*) A straight line segment that connects two points on a circle.

circle SUR kul (*n*) A plane figure of which every point on the outside edge is the same distance from a center point.

circumference sur KUHM tur uns (*n*) The distance around the outside edge of a circle.

common divisor KAHM un dih VYE zur (*n*) A number that is a divisor of all the numbers in a given set.

common factor KAHM un FAK tur (*n*) A number that is a factor of all the numbers in a given set.

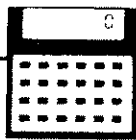
common multiple KAHM un MUHL tuh pul (*n*) A number that is a multiple of all the numbers in a given set.

commutative property KAHM yuh tay tiv PRAHP ur tee (*n*) A rule stating that when the order of two addends or factors changes, the sum or product remains the same.

compass KUHM pus (*n*) An instrument used to make circles or arcs.

composite number kum PAHZ iht NUHM bur (*n*) Any number that can be divided exactly by at least one number other than itself or 1.

cone kohn (*n*) A space figure that has a circular base and is pointed at the other end.



equivalent fractions ih KWIVH uh lunt FRAK shunz (*n*) Fractions that are the same amount.

estimate ES tuh mayt (*v*) To find an answer that is close to the exact answer.

even number EE vun NUHM bur (*n*) Any whole number that has 0, 2, 4, 6, or 8 in the ones place.

expanded form ihk SPAND ud form (*n*) A way to write numbers that shows the place value of each digit.

exponent ek SPOH nunt (*n*) A number or symbol written above and to the right of another number or symbol, telling how many times it is to be used as a factor.

face fays (*n*) The surface of one of the plane figures that make up a space figure.

factor FAK tur (*n*) One of two or more numbers that when multiplied together gives a product.

factor tree FAK tur tree (*n*) A picture to show the prime numbers of a composite number.

Fahrenheit scale FAR un hyt skayl (*n*) The customary temperature scale in which 32°F is the freezing point of water and 212°F is the boiling point.

foot fut (*n*) A customary unit of length equal to 12 inches.

fraction FRAK shun (*n*) A number that expresses a part of a whole.

gallon GAL lun (*n*) A customary unit of liquid measure equal to four quarts.

gram gram (*n*) The basic unit of weight in the metric system.

graph graf (*n*) A picture or chart that shows relationships between things.

greater than GRAY tur than (*n*) The relationship of one number being larger than another number.

greatest common factor (GCF) GRAY tihst KAHM un FAK tur (*n*) The greatest number that evenly divides into a given set of numbers.

hexagon HEK suh gahn (*n*) A polygon with six sides.

improper fraction ihm PRAHP ur FRAK shun (*n*) A fraction whose numerator is greater than or equal to the denominator.

inch ihnch (*n*) A customary unit of length equal to $\frac{1}{12}$ of a foot.

integer IHN tih jur (*n*) Any of the whole numbers or negative numbers, and zero.

interest IHN tur ihst (*n*) Payment for the use of borrowed money.

intersect ihn tur SEKT (*v*) To come together or cross.

isosceles triangle eye SAHS uh leez TRY ang gul (*n*) A triangle with at least two sides the same length and at least two angles the same measure.

multiplication muhl tuh plih KAY shun (*n*) The operation that is a short way of adding a number to itself a certain number of times.

multiplier MUHL tuh plye ur (*n*) A number by which another number is multiplied.

negative number NEG uh tiv NUHM bur (*n*) A number that is less than zero.

number line NUHM bur lyn (*n*) A line that shows numbers in order.

numeral NOO mur ul (*n*) A symbol representing a number.

numerator NOO muh ray tur (*n*) The number above the line in a fraction.

obtuse angle ahb TOOS ANG gul (*n*) An angle that measures more than 90 degrees but less than 180 degrees.

octagon AHK tuh gahn (*n*) A polygon with eight sides.

odd number ahd NUHM bur (*n*) Any whole number that has 1, 3, 5, 7, or 9 in the ones place.

ordinal number OR dn ul NUHM bur (*n*) A number that indicates order or position in a series.

origin OR uh jhn (*n*) The point at which two axes meet on a graph.

ounce ouns (*n*) A customary unit of weight equal to $\frac{1}{16}$ of a pound.

parallel lines PAR uh lel lynz (*n*) Two lines that lie in the same plane but do not intersect.

parallelogram par uh LEL uh gram (*n*) A quadrilateral with two pairs of parallel sides.

pentagon PEN tuh gahn (*n*) A polygon with five sides.

percent pur SENT (*n*) Out of each hundred.

perimeter puh RIHM ih tur (*n*) The distance around a figure.

perpendicular lines per pun DIHK yuh tur lynz (*n*) Two lines that intersect at right angles.

pint pynt (*n*) A customary unit of liquid measure equal to two cups.

place value plays VAL yoo (*n*) The value given to the place a digit occupies in a number.

plane figure playn FIHG yur (*n*) A figure that lies on a flat surface.

polygon PAHL ee gahn (*n*) A closed plane figure formed by line segments.

pound pound (*n*) A customary unit of weight equal to 16 ounces.

prime factorization prym fak tur ih ZAY shun (*n*) Writing a composite number as the product of prime numbers.

prime number prym NUHM bur (*n*) A whole number that cannot be divided without a remainder by any number other than itself and 1.

principal PRIHN suh pul (*n*) An amount of money on which interest is paid.



space figure spays FIHG yur (*n*) A figure that has volume.

sphere sfihr (*n*) A space figure in which all the points on the surface are the same distance from a center point.

square skwair (*n*) A quadrilateral with four right angles and all sides the same length.

square measure skwair MEZH ur (*n*) A unit used to measure area.

subtraction sub TRAK shun (*n*) The operation of finding how many are left when one number is taken away from another number.

subtrahend SUHB truh hend (*n*) The number to be subtracted from another number.

sum suhm (*n*) The number obtained by adding two or more numbers together.

symmetry SIHM ih tree (*n*) An exact matching in size, shape, and position of parts that are on opposite sides of a dividing line or center.

ton tuhn (*n*) A customary unit of weight equal to 2,000 pounds.

trapezoid TRAP ih zoid (*n*) A quadrilateral having one pair of parallel sides.

triangle TRY ang gul (*n*) A polygon with three sides.

unit YOO niht (*n*) An amount or quantity used as a standard of measurement.

vertex VUR teks (*n*) The point at which the rays of an angle intersect.

volume VAHL yoom (*n*) The measure of units of space occupied by a space figure.

whole number hohl NUHM bur (*n*) A number that tells how many complete units there are, such as the numbers 0, 1, 2, 3, 4, and so on.

yard yahrd (*n*) A customary unit of length equal to three feet.

ADDITIONAL WORDS
