The Dominican
COMMUNITY of SCHOOLS

May, 2023

Dear Parents/Guardians,

The attached math enrichment packet is meant to provide your child with a review of the skills he learned in Sixth Grade. Your child is expected to to turn the completed packet in to Mrs. Butler on the first day of the 2023-2024 school year. Please encourage your child to schedule time throughout the summer to work on the packet; do not wait until the end of summer to begin.

Reminders for your child:

- Read and follow all directions.
- Show work for ANY/ALL problems in an organized manner and number each problem to receive full credit.

Have a great summer!

Sincerely,

Coach Reeves

Name _____ Date _____ Class _____

LESSON 1-1

Identifying Integers and Their Opposites

Reteach

Positive numbers are greater than 0. Use a positive number to represent a gain or increase. Include the positive sign (+).

an increase of 10 points +10

a flower growth of 2 inches +2

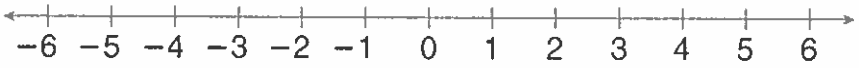
a gain of 15 yards in football +15

Negative numbers are less than 0. Use a negative number to represent a loss or decrease. Also use a negative number to represent a value below or less than a certain value. Include the negative sign (–).

a bank withdrawal of $30 –30

a decrease of 9 points –9

2° below zero –2



negative numbers positive numbers

Opposites are the same distance from zero on the number line, but in different directions. –3 and 3 are opposites because each number is 3 units from zero on a number line.

Integers are the set of all whole numbers, zero, and their opposites.

Name a positive or negative number to represent each situation.

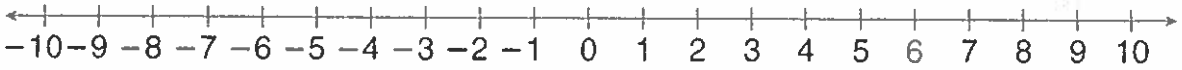
1. an increase of 3 points _____

2. spending $10 _____

3. earning $25 _____

4. a loss of 5 yards _____

Write each integer and its opposite. Then graph them on the number line.



5. –1 _____

6. 9 _____

7. 6 _____

8. –5 _____

Name _____ Date _____ Class _____

LESSON 1-2

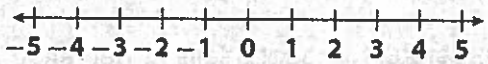
Comparing and Ordering Integers

Reteach

You can use a number line to compare integers.

As you move *right* on a number line, the values of the integers *increase*.
As you move *left* on a number line, the values of the integers *decrease*.

Compare –4 and 2.

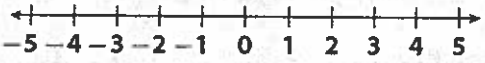


–4 is to the left of 2, so –4 < 2.

Use the number line above to compare the integers. Write < or >.

1. 1 ◯ –4
2. –5 ◯ –2
3. –3 ◯ 2
4. –1 ◯ –4
5. 5 ◯ 0
6. –2 ◯ 3

You can also use a number line to order integers.
Order –3, 4, and –1 from least to greatest.



List the numbers in the order in which they appear from left to right.

The integers in order from least to greatest are –3, –1, 4.

Order the integers from least to greatest.

7. –2, –5, –1 _____
8. 0, –5, 5 _____
9. –5, 2, –3 _____
10. 3, –1, –4 _____
11. 3, –5, 0 _____
12. –2, –4, 1 _____

Name _____ Date _____ Class _____

LESSON 2-2

Least Common Multiple

Reteach

The smallest number that is a multiple of two or more numbers is called the least common multiple (LCM) of those numbers.

To find the least common multiple of 3, 6, and 8, list the multiples for each number and put a circle around the LCM in the three lists.

Multiples of 3: 3, 6, 9, 12, 15, 18, 21, 24

Multiples of 6: 6, 12, 18, 24, 30, 36, 42

Multiples of 8: 8, 16, 24, 32, 40, 48, 56

So 24 is the LCM of 3, 6, and 8.

List the multiples of each number to help you find the least common multiple of each group.

1. 2 and 9

   Multiples of 2: _____

   Multiples of 9: _____

   LCM: _____

2. 4 and 6

   Multiples of 4: _____

   Multiples of 6: _____

   LCM: _____

3. 4 and 10

   Multiples of 4: _____

   Multiples of 10: _____

   LCM: _____

4. 2, 5, and 6

   Multiples of 2: _____

   Multiples of 5: _____

   Multiples of 6: _____

   LCM: _____

5. 3, 4, and 9

   Multiples of 3: _____

   Multiples of 4: _____

   Multiples of 9: _____

   LCM: _____

6. 8, 10, and 12

   Multiples of 8: _____

   Multiples of 10: _____

   Multiples of 12: _____

   LCM: _____

7. Pads of paper come 4 to a box, pencils come 27 to a box, and erasers come 12 to a box. What is the least number of kits that can be made with paper, pencils, and erasers with no supplies left over?

   _____

Name _____ Date _____ Class _____

LESSON 3-1

Classifying Rational Numbers

Reteach

A rational number is a number that can be written as $\frac{a}{b}$, where a and b are integers and $b \neq 0$. Decimals, fractions, mixed numbers, and integers are all rational numbers.

You can demonstrate a number is rational by writing it in the form $\frac{a}{b}$.

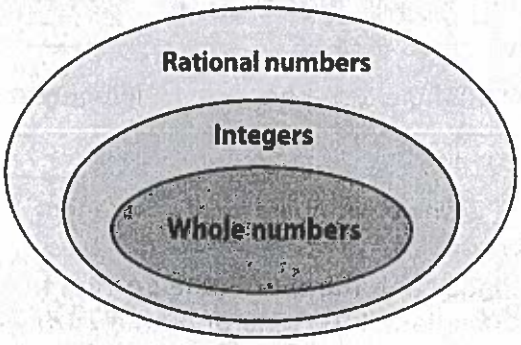
A. $14 = \frac{14}{1}$ Write the whole number over 1.

B. $0.83 = \frac{83}{100}$ Write the decimal as a fraction. Simplify if possible.

C. $5\frac{1}{8} = \frac{41}{8}$ Change the mixed number to an improper fraction.

A Venn diagram is a graphical illustration used to show relationships between various sets of data or groups. Each set or group is represented by an oval, and the relationships among these sets are expressed by their areas of overlap.

- Integers contain the entire set of whole numbers.
- Rational numbers contain the entire sets of integers and whole numbers.
- If a number is a whole number, it is also an integer.
- If a number is an integer, it is to also a rational number.



Write each rational number in the form $\frac{a}{b}$, where a and b are integers.

Then circle the name of each set to which the number belongs.

1. -12 _____ Whole Numbers Integers Rational Numbers
2. 7.3 _____ Whole Numbers Integers Rational Numbers
3. 0.41 _____ Whole Numbers Integers Rational Numbers
4. 6 _____ Whole Numbers Integers Rational Numbers
5. $3\frac{1}{2}$ _____ Whole Numbers Integers Rational Numbers

Name _____ Date _____ Class _____

LESSON 3-3

Comparing and Ordering Rational Numbers

Reteach

You can write decimals as fractions or mixed numbers. A place value table will help you read the decimal. Remember the decimal point is read as the word "and."

To write 0.47 as a fraction, first think about the decimal in words.

Ones	Tenths	Hundredths	Thousandths	Ten Thousandths
0	4	7		

0.47 is read "forty-seven hundredths." The place value of the decimal tells you the denominator is 100.

$$0.47 = \frac{47}{100}$$

To write 8.3 as a mixed number, first think about the decimal in words.

Ones	Tenths	Hundredths	Thousandths	Ten Thousandths
8	3			

8.3 is read "eight and three tenths." The place value of the decimal tells you the denominator is 10. The decimal point is read as the word "and."

$$8.3 = 8\frac{3}{10}$$

Write each decimal as a fraction or mixed number.

1. 0.61 ___
2. 3.43 ___
3. 0.009 ___
4. 4.7 ___
5. 1.5 ___
6. 0.13 ___
7. 5.002 ___
8. 0.021 ___

Name _____ Date _____ Class _____

LESSON 4-1

Applying GCF and LCM to Fraction Operations

Reteach

How to Multiply a Fraction by a Fraction

$\frac{2}{3} \cdot \frac{3}{8}$

$\frac{2}{3} \cdot \frac{3}{8} = \frac{6}{\quad}$ Multiply numerators.

$\frac{2}{3} \cdot \frac{3}{8} = \frac{6}{24}$ Multiply denominators.

$\frac{6 \div 6}{24 \div 6} = \frac{1}{4}$ Divide by the greatest common factor (GCF).

The GCF of 6 and 24 is 6.

How to Add or Subtract Fractions

$\frac{5}{6} + \frac{11}{15}$

$\frac{25}{30} + \frac{22}{30}$ Rewrite over the least common multiple (LCM).

The least common multiple of 6 and 15 is 30.

$\frac{25}{30} + \frac{22}{30} = \frac{47}{30}$ Add the numerators.

$= 1\frac{17}{30}$ If the sum is an improper fraction, rewrite it as a mixed number.

Multiply. Use the greatest common factor.

1. $\frac{3}{4} \cdot \frac{7}{9}$ _____

2. $\frac{2}{7} \cdot \frac{7}{9}$ _____

3. $\frac{7}{11} \cdot \frac{22}{28}$ _____

4. $8 \cdot \frac{3}{10}$ _____

5. $\frac{4}{9} \cdot \frac{3}{4}$ _____

6. $\frac{3}{7} \cdot \frac{2}{3}$ _____

Add or subtract. Use the least common multiple.

7. $\frac{7}{9} + \frac{5}{12}$ _____

8. $\frac{21}{24} - \frac{3}{8}$ _____

9. $\frac{11}{15} + \frac{7}{12}$ _____

Name _____ Date _____ Class _____

LESSON 4-2

Dividing Fractions

Reteach

Two numbers are reciprocals if their product is 1.

$\frac{2}{3}$ and $\frac{3}{2}$ are reciprocals because $\frac{2}{3} \cdot \frac{3}{2} = \frac{6}{6} = 1$.

Dividing by a number is the same as multiplying by its reciprocal.

$\frac{1}{4} \div \frac{1}{2} = \frac{1}{2}$ $\longrightarrow$ $\frac{1}{4} \cdot \frac{2}{1} = \frac{1}{2}$

So, you can use reciprocals to divide by fractions.

Find $\frac{2}{3} \div \frac{1}{4}$.

First, rewrite the expression as a multiplication expression.

Use the reciprocal of the divisor: $\frac{1}{4} \cdot \frac{4}{1} = 1$.

$$\frac{2}{3} \div \frac{1}{4} = \frac{2}{3} \cdot \frac{4}{1}$$
$$= \frac{8}{3}$$
$$= 2\frac{2}{3}$$

Think: 6 thirds is 2, and 2 of the 8 thirds are left over.

Rewrite each division expression as a multiplication expression. Then find the value of the expression. Write each answer in simplest form.

1. $\frac{1}{4} \div \frac{1}{3}$ _____

2. $\frac{1}{2} \div \frac{1}{4}$ _____

3. $\frac{3}{8} \div \frac{1}{2}$ _____

4. $\frac{1}{3} \div \frac{3}{4}$ _____

Divide. Write each answer in simplest form.

5. $\frac{1}{5} \div \frac{1}{2}$ _____

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

7. $\frac{1}{8} \div \frac{2}{5}$ _____

8. $\frac{1}{8} \div \frac{1}{2}$ _____

Name _____ Date _____ Class _____

LESSON 5-3

Multiplying Decimals

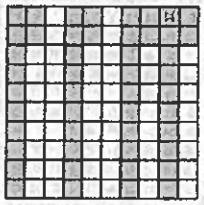
Reteach

You can use a model to help you multiply a decimal by a whole number.

Find the product of 0.12 and 4.

Use a 10-by-10 grid. Shade 4 groups of 12 squares.

Count the number of shaded squares. Since you have shaded 48 of the 100 squares, $0.12 \times 4 = 0.48$.



Find each product.

1. 0.23×3 _____
2. 0.41×2 _____
3. 0.01×5 _____
4. 0.32×2 _____
5. 0.15×3 _____
6. 0.42×2 _____
7. 0.04×8 _____
8. 0.22×4 _____

You can also use a model to help you multiply a decimal by a decimal.

Find the product of 0.8 and 0.4.

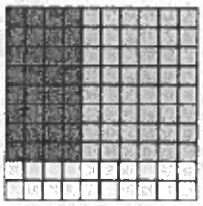
Step 1 Shade 8 tenths of the figure.

Step 2 Shade darker 4 tenths of the shaded area.

Step 3 How many squares have you shaded twice?

You have twice shaded 32 of the squares.

So, $0.8 \times 0.4 = 0.32$.



Find each product.

9. 0.2×0.8 _____
10. 0.7×0.9 _____
11. 0.5×0.5 _____
12. 0.3×0.6 _____
13. 0.5×0.2 _____
14. 0.4×0.4 _____
15. 0.1×0.9 _____
16. 0.4×0.7 _____

Name _____ Date _____ Class _____

LESSON 6-2

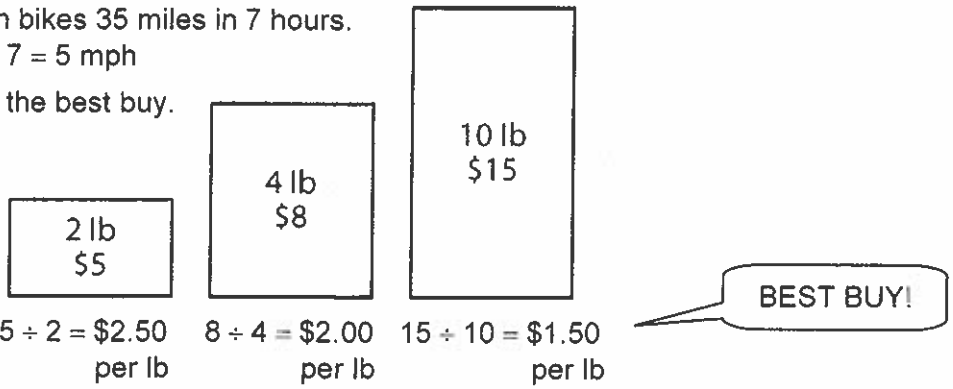
Rates

Reteach

You can divide to find a unit rate or to determine a best buy.

A. Find the unit rate.
Karin bikes 35 miles in 7 hours.
$35 \div 7 = 5$ mph

B. Find the best buy.



$5 \div 2 = \$2.50$ per lb

$8 \div 4 = \$2.00$ per lb

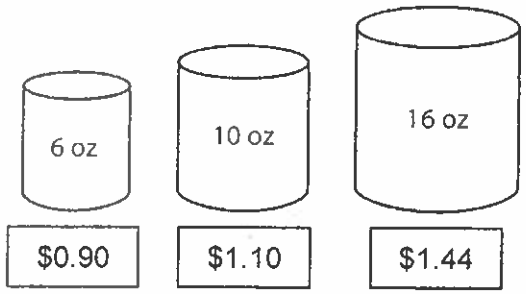
$15 \div 10 = \$1.50$ per lb

Divide to find each unit rate. Show your work.

1. Jack shells 315 peanuts in 15 minutes. _____
2. Sharmila received 81 texts in 9 minutes. _____
3. Karim read 56 pages in 2 hours. _____

Find the best buy. Show your work.

4.



_____

_____

5.

Bread	Weight (oz)	Cost ($)
Whole wheat	16	2.24
Pita	20	3.60
7-grain	16	2.56

_____

_____

_____

_____

Name _____ Date _____ Class _____

LESSON 7-1

Ratios, Rates, Tables, and Graphs

Reteach

A **ratio** shows a relationship between two quantities.

Ratios are **equivalent** if they can be written as the same fraction in lowest terms.

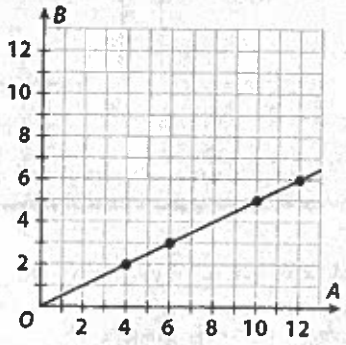
A **rate** is a ratio that shows the relationship between two different units of measure in lowest terms.

You can make a table of equivalent ratios. You can graph the equivalent ratios.

A	4	6	10	12
B	2	3	5	6

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

$\frac{10}{5} = \frac{2}{1}$ $\frac{12}{6} = \frac{2}{1}$



1. Use equivalent ratios to complete the table.

A	6	9			18		
B	2		4	5		7	8

2. Show the ratios are equivalent by simplifying any 4 of them.

_____

3. Find the rate of $\frac{A}{B}$ and complete the equivalent ratio: $\frac{69}{\quad}$.

_____

4. Use the rate to find how many As are needed for 63 Bs, then write the ratio.

_____

Name _____ Date _____ Class _____

LESSON 8-2

Percents, Fractions, and Decimals

Reteach

To change a decimal to a percent:

- move the decimal point two places to the right;
- write the % symbol after the number.

$0.07 = .07. = 7\%$

Write each decimal as a percent.

1. 0.34 _____
2. 0.06 _____
3. 0.93 _____
4. 0.57 _____
5. 0.8 _____
6. 0.734 _____
7. 0.082 _____
8. 0.225 _____
9. 0.604 _____
10. 0.09 _____
11. 0.518 _____
12. 1.03 _____

To change a fraction to a percent:

- Find an equivalent fraction with a denominator of 100.
- Use the numerator of the equivalent fraction as the percent.

$$\frac{8}{25} = \frac{x}{100}$$

$$\frac{8 \cdot 4}{25 \cdot 4} = \frac{32}{100}$$

$$\frac{8}{25} = \frac{32}{100} = 32\%$$

Think: $100 \div 25 = 4$. So, multiply the numerator and denominator by 4.

Write each fraction as a percent.

13. $\frac{3}{10}$ _____
14. $\frac{2}{50}$ _____
15. $\frac{7}{20}$ _____
16. $\frac{1}{5}$ _____
17. $\frac{1}{8}$ _____
18. $\frac{3}{25}$ _____
19. $\frac{3}{4}$ _____
20. $\frac{23}{50}$ _____
21. $\frac{11}{20}$ _____
22. $\frac{43}{50}$ _____
23. $\frac{24}{25}$ _____
24. $\frac{7}{8}$ _____

Name _____ Date _____ Class _____

LESSON 9-1

Exponents

Reteach

You can write a number in exponential form to show repeated multiplication. A number written in exponential form has a **base** and an **exponent**. The exponent tells you how many times a number, the base, is used as a factor.

8^4 ← exponent

↓

base

Write the expression in exponential form.

$(0.7) \times (0.7) \times (0.7) \times (0.7)$

0.7 is used as a factor 4 times.

$(0.7) \times (0.7) \times (0.7) \times (0.7) = (0.7)^4$

Write each expression in exponential form.

1. $\frac{1}{20} \times \frac{1}{20} \times \frac{1}{20} \times \frac{1}{20}$ _____

2. 8×8 _____

3. $7.5 \times 7.5 \times 7.5$ _____

4. (0.4) _____

You can find the value of expressions in exponential form.
Find the value.
5^6

Step 1 Write the expression as repeated multiplication.
$5 \times 5 \times 5 \times 5 \times 5 \times 5$

Step 2 Multiply.
$5 \times 5 \times 5 \times 5 \times 5 \times 5 = 15{,}625$

$5^6 = 15{,}625$

Simplify.

5. $\left(\frac{1}{2}\right)^3$ _____

6. $(1.2)^5$ _____

7. 3^6 _____

8. $\left(\frac{4}{3}\right)^2$ _____

Name _____ Date _____ Class _____

LESSON 10-3

Generating Equivalent Expressions

Reteach

Look at the following expressions: $x = 1x$
$x + x = 2x$
$x + x + x = 3x$

The numbers 1, 2, and 3 are called **coefficients** of x.

Identify each coefficient.

1. $8x$ ____ 2. $3m$ ____ 3. y ____ 4. $14t$ ____

An algebraic expression has terms that are separated by + and –.
In the expression $2x + 5y$, the **terms** are $2x$ and $5y$.

Expression	Terms
$8x + 4y$	$8x$ and $4y$
$5m - 2m + 9$	$5m$, $-2m$, and 9
$4a^2 - 2b + c - 2a^2$	$4a^2$, $-2b$, c, and $-2a^2$

Sometimes the terms of an expression can be combined.
Only **like terms** can be combined.

$2x + 2y$ NOT like terms, the variables are different.

$4a^2 - 2a$ NOT like terms, the exponents are different.

$5m - 2m$ Like terms, the variables and exponents are both the same.

$n^3 + 2n^3$ Like terms, the variables and exponents are both the same.

To **simplify** an expression, combine like terms by adding or subtracting the coefficients of the variable.

$\mathbf{5}m - \mathbf{2}m = \mathbf{3}m$

$4a^2 + \mathbf{5}a + \mathbf{a} + 3 = 4a^2 + \mathbf{6}a + 3$ Note that the coefficient of a is 1.

Simplify.

5. $8x + 2x$ _____ 6. $3m - m$ _____ 7. $6y + 6y$ _____ 8. $14t - 3t$ _____

9. $3b + b + 6$ _____ 10. $9a - 3a + 4$ _____ 11. $n + 5n - 3c$ _____ 12. $12d - 2d + e$ _____

Name _____ Date _____ Class _____

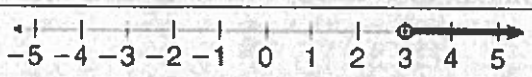
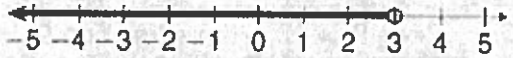
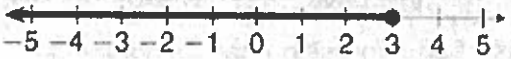
LESSON 11-4

Writing Inequalities

Reteach

An equation is a statement that says two quantities are equal. An **inequality** is a statement that says two quantities are **not** equal.

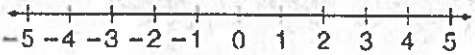
A **solution of an inequality** that contains a variable is any value or values of the variable that makes the inequality true. All values that make the inequality true can be shown on a graph.

Inequality	Meaning	Solution of Inequality
$x > 3$	All numbers *greater than* 3	 The *open circle* at 3 shows that the value 3 is **not** included in the solution.
$x \geq 3$	All numbers *greater than or equal to* 3	 The *closed circle* at 3 shows that the value 3 **is** included in the solution.
$x < 3$	All numbers *less than* 3	
$x \leq 3$	All numbers *less than or equal to* 3	

Graph the solutions of each inequality.

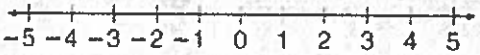
1. $x > -4$

- Draw an open circle at −4.
- Read $x > -4$ as "x is greater than −4."
- Draw an arrow to the right of −4.

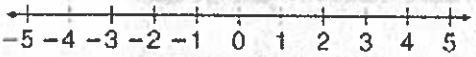


2. $x \leq 1$

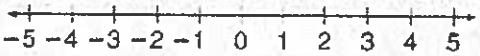
- Draw a closed circle at 1.
- Read $x \leq 1$ as "x is less than or equal to 1."
- Draw an arrow to the left of 1.



3. $a > -1$



4. $y \leq 3$



Write an inequality that represents each phrase.

5. the sum of 2 and 3 is less than y

_____

6. the sum of y and 2 is greater than or equal to 6

_____

Name _____ Date _____ Class _____

LESSON 12-1

Graphing on the Coordinate Plane

Reteach

Each quadrant of the coordinate plane has a unique combination of positive and negative signs for the *x*-coordinates and *y*-coordinates as shown here.

Quadrant	*x*-coordinate	*y*-coordinate
I	+	+
II	–	+
III	–	–
IV	+	–

Use these rules when naming points on the coordinate plane.

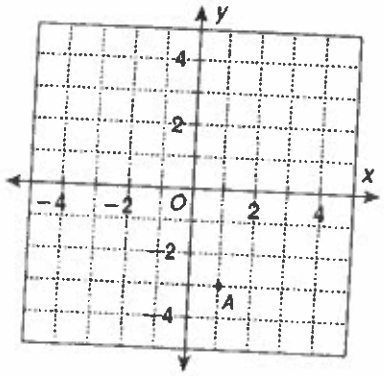
Example 1

Draw the point $A(1, -3)$ on the coordinate grid.

Solution

According to the table, this point will be in Quadrant IV.

So, go to the *right* (+) one unit, and go *down* (–) three units.



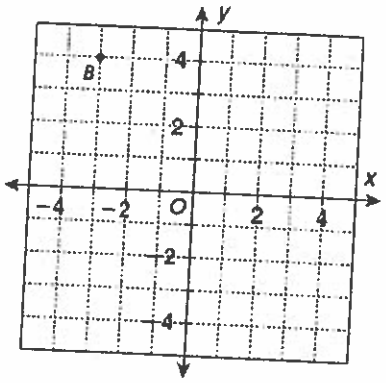
Example 2

What are the coordinates of point *B*?

Solution

According to the table, this point will have a negative *x*-coordinate and a positive *y*-coordinate.

Point *B* is 3 three units to the *left* (–) and four units *up* (+). So the coordinates of point *B* are (–3, 4).



Add the correct sign for each point's coordinates.

1. (___ 3, ___ 4) in Quadrant II

2. (___ 2, ___ 5) in Quadrant IV

3. (___ 9, ___ 1) in Quadrant I

4. In which quadrant is the point (0, 7) located? Explain your answer.

_____

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LESSON 12-2

Independent and Dependent Variables in Tables and Graphs

Reteach

In a table, the *independent variable* is often represented by x. The *dependent variable* is often represented by y. Look at this example.

x	0	1	2	3	4	5	6	7
y	4	5	6	7	8	9	10	?

What y value goes for the question mark?

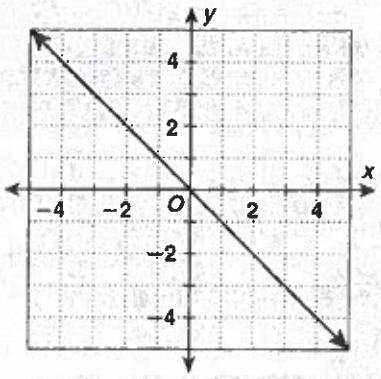
Step 1 Notice that 4 is added to each value of x to give the y value.

Step 2 So, add 4 to 7. What does this give? $4 + 7 = 11$

On a chart or graph,

- the x-axis is usually used for the *independent variable*, and
- the y-axis is usually used for the *dependent variable*.

Look at the example. ⟶



How does y depend on x?

Step 1 Each value of y is the opposite of the value of x.

Step 2 What equation shows this fact?
$y = -x$

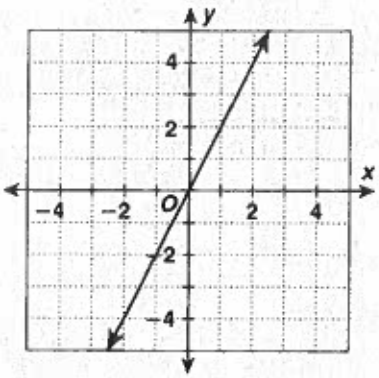
Give the relationship between x and y.

1.

x	1	2	3	4	5
y	3	4	5	6	7

_____

2.



a. What is y when $x = 2$?

_____

b. What value of x gives $y = -2$?

_____

c. Write the equation for the graph.

_____

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LESSON 12-3

Writing Equations from Tables

Reteach

The relationship between two variables in which one quantity depends on the other can be modeled by an equation. The equation expresses the dependent variable y in terms of the independent variable x.

x	0	1	2	3	4	5	6	7
y	4	5	6	7	8	9	10	?

To write an equation from a table of values, first compare the x- and y-values to find a pattern. In each, the y-value is 4 more than the x-value.

Then use the pattern to write an equation expressing y in terms of x.
$y = x + 4$

You can use the equation to find the missing value in the table. To find y when $x = 7$, substitute 7 in for x in the equation.

$y = x + 4$
$y = 7 + 4$
$y = 11$
So, y is **11** when x is 7.

Write an equation to express y in terms of x. Use your equation to find the missing value of y.

1.

x	1	2	3	4	5	6
y	3	6	9	12	15	?

_____

2.

x	18	17	16	15	14	13
y	15	14	13	?	11	10

_____

To solve a real-world problem, use a table of values and an equation.

When Todd is 8, Jane is 1. When Todd is 10, Jane will be 3. When Todd is 16, Jane will be 9. What is Jane's age when Todd is 45?

Todd, x	8	10	16	45
Jane, y	1	3	9	?

Jane is 7 years younger than Todd.
So $y = x - 7$. When $x = 45$, $y = 45 - 7$. So, $y = 38$.

Solve.

3. When a rectangle is 3 inches wide its length is 6 inches. When it is 4 inches wide its length will be 8 inches. When it is is 9 inches wide its length will be 18 inches. Write and solve an equation to complete the table.

Width, x	3	4	9	20
Length, y	6			

_____

When the rectangle is 20 inches wide, its length is _____.

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LESSON 13-1

Area of Quadrilaterals

Reteach

You can use formulas to find the areas of quadrilaterals.

The area A of a **parallelogram** is the product of its base b and its height h.

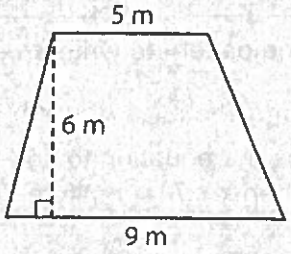
$$A = bh$$

$$A = bh$$
$$= 3 \cdot 7$$
$$= 21 \text{ cm}^2$$

The area of a **trapezoid** is half its height multiplied by the sum of the lengths of its two bases.

$$A = \frac{1}{2}h(b_1 + b_2)$$

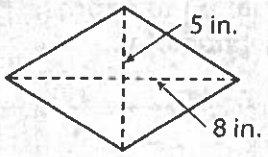
$$A = \frac{1}{2}h(b_1 + b_2)$$
$$= \frac{1}{2} \cdot 6(5 + 9)$$
$$= \frac{1}{2} \cdot 6(14)$$
$$= 3 \cdot 14$$
$$= 42 \text{ m}^2$$



The area of a **rhombus** is half of the product of its two diagonals.

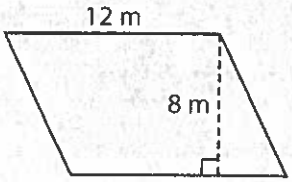
$$A = \frac{1}{2}d_1d_2$$

$$A = \frac{1}{2}d_1d_2$$
$$= \frac{1}{2}(5)(8)$$
$$= 20 \text{ in}^2$$



Find the area of each figure.

1.



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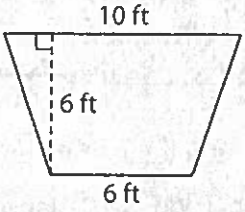

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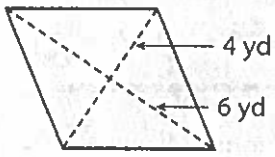
3.



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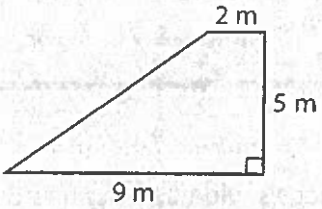
4.



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LESSON 13-2

Area of Triangles

Reteach

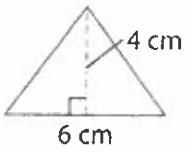
To find the area of a triangle, first turn your triangle into a rectangle.

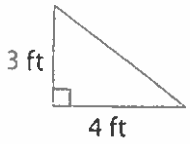
Next, find the area of the rectangle. $6 \bullet 3 = 18$ square units

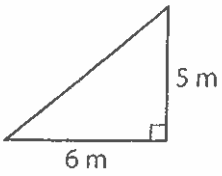
The triangle is half the area of the formed rectangle or $A = \frac{1}{2}bh$, so divide the product by 2.

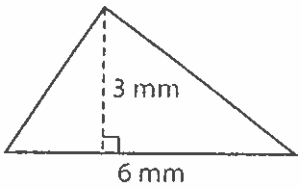
$18 \div 2 = 9$ So, the area of the triangle is 9 square units.

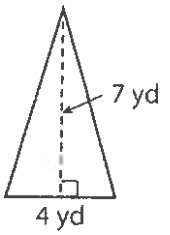
Find the area of each triangle.

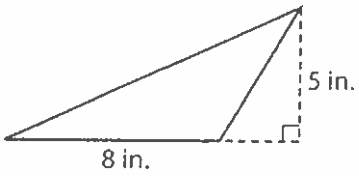
1. 

2. 

3. 

4. 

5. 

6. 

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LESSON 13-4

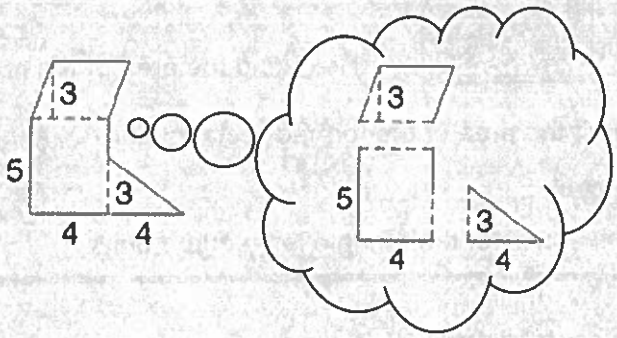
Area of Polygons

Reteach

Sometimes you can use area formulas you know to help you find the area of more complex figures.

You can break a polygon into shapes that you know. Then use those shapes to find the area.

The figure at right is made up of a triangle, a parallelogram, and a rectangle.



Triangle

$A = \frac{1}{2}bh$

$= \frac{1}{2}(3 \times 4)$

$= 6$ square units

Parallelogram

$A = bh$

$= 3 \times 4$

$= 12$ square units

Rectangle

$A = lw$

$= 4 \times 5$

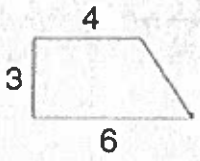
$= 20$ square units

Finally, find the sum of all three areas.

$6 + 12 + 20 = 38$

The area of the whole figure is 38 square units.

Find the area of each figure.

1. 

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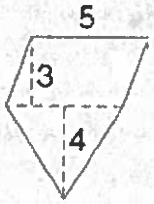
2. 

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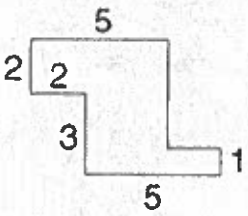
3. 

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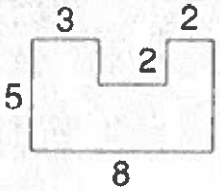
4. 

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