

School-Home Letter

Dear Family,

Throughout the next few weeks, our math class will be learning about place value, number properties, and numerical expressions. We will also learn to multiply by 1- and 2-digit whole numbers.

You can expect to see homework that requires students to write and evaluate numerical expressions.

Here is a sample of how your child will be taught to evaluate an expression.

Vocabulary

evaluate To find the value of a numerical or algebraic expression

numerical expression A mathematical phrase that has numbers and operation signs but does not have an equal sign

order of operations The process for evaluating expressions



MODEL Evaluate Expressions

This is how we will be evaluating $36 - (2 + 3) \times 4$.

STEP 1

Perform the operations in parentheses.

$$36 - (2 + 3) \times 4$$

$$36 - 5 \times 4$$

STEP 2

Multiply.

$$36 - 20$$

STEP 3

Subtract.

$$16$$

$$36 - (2 + 3) \times 4 = 16$$

Tips

Order of Operations

To evaluate an expression, first perform the operations in parentheses. Next, multiply and divide from left to right. Finally, add and subtract from left to right.

Activity

You can write numerical expressions to describe situations around the house. For example, "We bought a case of 24 water bottles and have used 13 bottles. What expression shows how many are left?" can be represented by the expression $24 - 13$.

Carta para la casa

Querida familia,

Durante las próximas semanas, en la clase de matemáticas aprenderemos sobre el valor de posición, las propiedades de los números y las expresiones numéricas.

Llevaré a la casa tareas con actividades para practicar la escritura y evaluación de expresiones numéricas.

Este es un ejemplo de la manera en que evaluaremos expresiones numéricas.

Vocabulario

evaluar Hallar el valor de una expresión numérica o algebraica

expresión numérica Una frase matemática que tiene solo números y signos de operaciones.

orden de las operaciones El proceso que se usa para evaluar expresiones



MODELO

Evaluar expresiones

Así es como evaluaremos $36 - (2 + 3) \times 4$.

Sandra tiene 8 manzanas. Le da algunas manzanas a Josh.

PASO 1

Resuelve las operaciones en paréntesis.

$$36 - (2 + 3) \times 4$$

$$36 - 5 \times 4$$

PASO 2

Multiplica.

$$36 - 20$$

PASO 3

Resta.

$$16$$

$$36 - (2 + 3) \times 4 = 16$$

Pistas

Orden de las Operaciones

Para evaluar una expresión, primero resuelve las operaciones en paréntesis. Después multiplica y divide de izquierda a derecha. Finalmente suma y resta de izquierda a derecha.

Actividad

Pueden escribir expresiones numéricas para representar cosas que suceden en la casa. Por ejemplo, "Compramos una caja de 24 botellas de agua y usamos 13 botellas. ¿Qué expresión muestra cuántas botellas quedan?", se puede representar con $24 - 13$.

Name _____

Place Value and Patterns

Complete the sentence.

1. 40,000 is 10 times as much as **4,000** | 2. 90 is $\frac{1}{10}$ of _____.

3. 800 is 10 times as much as _____ | 4. 5,000 is $\frac{1}{10}$ of _____.

Use place-value patterns to complete the table.

Number	10 times as much as	$\frac{1}{10}$ of
5. 100		
6. 7,000		
7. 300		
8. 80		

Number	10 times as much as	$\frac{1}{10}$ of
9. 2,000		
10. 900		
11. 60,000		
12. 500		

Problem Solving



13. The Eatery Restaurant has 200 tables. On a recent evening, there were reservations for $\frac{1}{10}$ of the tables. How many tables were reserved?

14. Mr. Wilson has \$3,000 in his bank account. Ms. Nelson has 10 times as much money in her bank account as Mr. Wilson has in his bank account. How much money does Ms. Nelson have in her bank account?

Lesson Check

1. What is 10 times as much as 700?
(A) 7
(B) 70
(C) 7,000
(D) 70,000
2. What is $\frac{1}{10}$ of 3,000?
(A) 30,000
(B) 300
(C) 30
(D) 3

Spiral Review

3. Risa is sewing a ribbon around the sides of a square blanket. Each side of the blanket is 72 inches long. How many inches of ribbon will Risa need? (Grade 4)
(A) 144 inches
(B) 208 inches
(C) 288 inches
(D) 5,184 inches
4. What is the value of n ? (Grade 4)
 $9 \times 27 + 2 \times 31 - 28 = n$
(A) 249
(B) 277
(C) 783
(D) 7,567
5. Between what pair of numbers is the product of 289 and 7? (Grade 4)
(A) between 200 and 300
(B) between 1,400 and 1,500
(C) between 1,400 and 1,800
(D) between 1,400 and 2,100
6. Which list shows the numbers in order from **greatest to least**? (Grade 4)
(A) 7,613; 7,361; 7,136
(B) 7,631; 7,136; 7,613
(C) 7,136; 7,361; 7,613
(D) 7,136; 7,613; 7,361

Name _____

Place Value of Whole Numbers

Write the value of the underlined digit.

1. 5,165,874

60,000

2. 281,480,100

3. 7,270

4. 89,170,326

5. 7,050,423

6. 646,950

7. 37,123,745

8. 315,421,732

Write the number in two other forms.

9. 15,409

10. 100,203

11. 6,007,200

12. 32,005,008

Problem Solving



13. The U.S. Census Bureau has a population clock on the Internet. On a recent day, the United States population was listed as 310,763,136. Write this number in word form.

14. In 2008, the population of 10- to 14-year-olds in the United States was 20,484,163. Write this number in expanded form.

Lesson Check

1. A movie cost \$3,254,107 to produce. Which digit is in the hundred thousands place?
(A) 5
(B) 4
(C) 2
(D) 1
2. Which is another way to write two hundred ten million, sixty-four thousand, fifty?
(A) 210,640,050
(B) 210,064,050
(C) 201,064,500
(D) 200,106,450

Spiral Review

3. If the pattern below continues, what number likely comes next? (Grade 4)
9, 12, 15, 18, 21, ?
(A) 36
(B) 24
(C) 22
(D) 20
4. What is $52 \div 8$? (Grade 4)
(A) 8 r4
(B) 7 r4
(C) 6 r4
(D) 5 r4
5. How many pairs of parallel sides does the trapezoid below have? (Grade 4)
6. Which figure appears to have only 1 line of symmetry? (Grade 4)



Name _____

Properties

Use properties to find the sum or product.

1. 6×89

$6 \times (90 - 1)$

$(6 \times 90) - (6 \times 1)$

$540 - 6$

534

2. $93 + (68 + 7)$

3. $5 \times 23 \times 2$

4. 8×51

5. $34 + 0 + 18 + 26$

6. 6×107

Complete the equation, and tell which property you used.

7. $(3 \times 10) \times 8 = \underline{\hspace{2cm}} \times (10 \times 8)$

8. $16 + 31 = 31 + \underline{\hspace{2cm}}$

9. $0 + \underline{\hspace{2cm}} = 91$

10. $21 \times \underline{\hspace{2cm}} = 9 \times 21$

Problem Solving



11. The Metro Theater has 20 rows of seats with 18 seats in each row. Tickets cost \$5. The theater's income in dollars if all seats are sold is $(20 \times 18) \times 5$. Use properties to find the total income.

12. The numbers of students in the four sixth-grade classes at Northside School are 26, 19, 34, and 21. Use properties to find the total number of students in the four classes.

Lesson Check

1. To find $19 + (11 + 37)$, Lennie added 19 and 11. Then he added 37 to the sum. Which property did he use?
(A) Distributive Property
(B) Commutative Property of Addition
(C) Associative Property of Addition
(D) Identity Property of Addition
2. Marla did 65 sit-ups each day for one week. Which expression can you use to find the total number of sit-ups Marla did during the week?
(A) $(7 \times 6) + (7 \times 5)$
(B) $(5 \times 60) + (5 \times 7)$
(C) $(7 + 60) \times (7 + 5)$
(D) $(7 \times 60) + (7 \times 5)$

Spiral Review

3. The average sunflower has 34 petals. Which is the best estimate of the total number of petals on 57 sunflowers? (Grade 4)
(A) 18
(B) 180
(C) 1,800
(D) 18,000
4. A golden eagle flies a distance of 290 miles in 5 days. If the eagle flies the same distance each day of its journey, how far does the eagle fly per day? (Grade 4)
(A) 50 miles
(B) 58 miles
(C) 290 miles
(D) 295 miles
5. What is the value of the underlined digit in the following number? (Lesson 1.2)
 $2,9\text{8}3,785$
(A) 80
(B) 800
(C) 8,000
(D) 80,000
6. The number 5 is (Grade 4)
(A) prime.
(B) composite.
(C) neither prime nor composite.
(D) both prime and composite.

Name _____

Powers of 10 and Exponents

Write in exponent form and word form.

1. $10 \times 10 \times 10$

2. 10×10

3. $10 \times 10 \times 10 \times 10$

exponent form: 10^3

exponent form: _____

exponent form: _____

word form: **the
third power
of ten**

word form: _____

word form: _____

Find the value.

4. 10^3

5. 4×10^2

6. 9×10^4

7. 10^1

8. 10^5

9. 5×10^1

10. 7×10^3

11. 8×10^0

Problem Solving



12. The moon is about 240,000 miles from Earth. What is this distance written as a whole number multiplied by a power of ten?

13. The sun is about 93×10^6 miles from Earth. What is this distance written as a whole number?

Lesson Check

1. Which of the following is NOT equivalent to "3 times the sixth power of 10?"
 - (A) 3×10^6
 - (B) 3,000,000
 - (C) $3 \times 10 \times 6$
 - (D) $3 \times 1,000,000$
2. Gary mails 10^3 flyers to clients in one week. How many flyers does Gary mail?
 - (A) 10
 - (B) 100
 - (C) 1,000
 - (D) 10,000

Spiral Review

3. Harley is loading 625 bags of cement onto small pallets. Each pallet holds 5 bags. How many pallets will Harley need? (Grade 4)
 - (A) 125
 - (B) 620
 - (C) 630
 - (D) 3,125
4. Marylou buys a package of 500 jewels to decorate 4 different pairs of jeans. She uses the same number of jewels on each pair of jeans. How many jewels will she use for each pair of jeans? (Grade 4)
 - (A) 100
 - (B) 125
 - (C) 200
 - (D) 2,000
5. Manny buys 4 boxes of straws for his restaurant. There are 500 straws in each box. How many straws does he buy? (Grade 4)
 - (A) 20,000
 - (B) 2,000
 - (C) 200
 - (D) 125
6. Cammie goes to the gym to exercise 4 times per week. Altogether, how many times does she go to the gym in 10 weeks? (Grade 4)
 - (A) 4
 - (B) 10
 - (C) 20
 - (D) 40

Name _____

Multiplication Patterns

Use mental math to complete the pattern.

1. $8 \times 3 = 24$

$$\begin{array}{r} (8 \times 3) \times 10^1 = \underline{240} \\ (8 \times 3) \times 10^2 = \underline{2,400} \\ (8 \times 3) \times 10^3 = \underline{24,000} \end{array}$$

2. $5 \times 6 = \underline{\hspace{2cm}}$

$(5 \times 6) \times 10^1 = \underline{\hspace{2cm}}$

$(5 \times 6) \times 10^2 = \underline{\hspace{2cm}}$

$(5 \times 6) \times 10^3 = \underline{\hspace{2cm}}$

3. $3 \times \underline{\hspace{2cm}} = 27$

$(3 \times 9) \times 10^1 = \underline{\hspace{2cm}}$

$(3 \times 9) \times 10^2 = \underline{\hspace{2cm}}$

$(3 \times 9) \times 10^3 = \underline{\hspace{2cm}}$

4. $\underline{\hspace{2cm}} \times 4 = 28$

$(7 \times 4) \times \underline{\hspace{2cm}} = 280$

$(7 \times 4) \times \underline{\hspace{2cm}} = 2,800$

$(7 \times 4) \times \underline{\hspace{2cm}} = 28,000$

5. $6 \times 8 = \underline{\hspace{2cm}}$

$(6 \times 8) \times 10^2 = \underline{\hspace{2cm}}$

$(6 \times 8) \times 10^3 = \underline{\hspace{2cm}}$

$(6 \times 8) \times 10^4 = \underline{\hspace{2cm}}$

6. $\underline{\hspace{2cm}} \times 4 = 16$

$(4 \times 4) \times 10^2 = \underline{\hspace{2cm}}$

$(4 \times 4) \times 10^3 = \underline{\hspace{2cm}}$

$(4 \times 4) \times 10^4 = \underline{\hspace{2cm}}$

Use mental math and a pattern to find the product.

7. $(2 \times 9) \times 10^2 = \underline{\hspace{2cm}}$

8. $(8 \times 7) \times 10^2 = \underline{\hspace{2cm}}$

9. $(9 \times 6) \times 10^3 = \underline{\hspace{2cm}}$

10. $(3 \times 7) \times 10^3 = \underline{\hspace{2cm}}$

11. $(5 \times 9) \times 10^4 = \underline{\hspace{2cm}}$

12. $(4 \times 8) \times 10^4 = \underline{\hspace{2cm}}$

13. $(8 \times 8) \times 10^3 = \underline{\hspace{2cm}}$

14. $(6 \times 4) \times 10^4 = \underline{\hspace{2cm}}$

15. $(5 \times 5) \times 10^3 = \underline{\hspace{2cm}}$

Problem Solving



16. The Florida Everglades welcomes about 2×10^3 visitors per day. Based on this, about how many visitors come to the Everglades per week?

17. The average person loses about 8×10^1 strands of hair each day. About how many strands of hair would the average person lose in 9 days?

Lesson Check

1. How many zeros are in the product $(6 \times 5) \times 10^3$?
(A) 3
(B) 4
(C) 5
(D) 6
2. Addison studies a tarantula that is 30 millimeters long. Suppose she uses a microscope to magnify the spider by 4×10^2 . How long will the spider appear to be?
(A) 12 millimeters
(B) 120 millimeters
(C) 1,200 millimeters
(D) 12,000 millimeters

Spiral Review

3. Hayden has 6 rolls of dimes. There are 50 dimes in each roll. How many dimes does he have altogether? (Grade 4)
(A) 300
(B) 110
(C) 56
(D) 30
4. An adult ticket to the zoo costs \$20, and a child's ticket costs \$10. How much will it cost for Mr. and Mrs. Brown and their 4 children to get into the zoo? (Grade 4)
(A) \$40
(B) \$60
(C) \$80
(D) \$100
5. At a museum, 100 posters are displayed in each of 4 rooms. Altogether, how many posters are displayed? (Grade 4)
(A) 40
(B) 100
(C) 104
(D) 400
6. A store sells a gallon of milk for \$3. A baker buys 30 gallons of milk for his bakery. How much will he have to pay? (Grade 4)
(A) \$120
(B) \$90
(C) \$60
(D) \$30

Name _____

Multiply by 1-Digit Numbers

Estimate. Then find the product.

1. Estimate: 3,600

$$\begin{array}{r} 15 \\ 416 \\ \times 9 \\ \hline 3,744 \end{array}$$

2. Estimate: _____

$$\begin{array}{r} 1,374 \\ \times 6 \\ \hline \end{array}$$

3. Estimate: _____

$$\begin{array}{r} 726 \\ \times 5 \\ \hline \end{array}$$

4. Estimate: _____

$$\begin{array}{r} 872 \\ \times 3 \\ \hline \end{array}$$

5. Estimate: _____

$$\begin{array}{r} 2,308 \\ \times 9 \\ \hline \end{array}$$

6. Estimate: _____

$$\begin{array}{r} 1,564 \\ \times 5 \\ \hline \end{array}$$

Estimate. Then find the product.

7. 4×979

8. 503×7

9. $5 \times 4,257$

10. $6,018 \times 9$

11. 758×6

12. 3×697

13. $2,141 \times 8$

14. $7 \times 7,956$

Problem Solving



15. Mr. and Mrs. Dorsey and their three children are flying to Springfield. The cost of each ticket is \$179. Estimate how much the tickets will cost. Then find the exact cost of the tickets.

16. Ms. Tao flies roundtrip twice yearly between Jacksonville and Los Angeles on business. The distance between the two cities is 2,150 miles. Estimate the distance she flies for both trips. Then find the exact distance.

Lesson Check

1. Mr. Nielson works 154 hours each month. He works 8 months each year. How many hours does Mr. Nielson work each year?
(A) 832 hours
(B) 1,232 hours
(C) 1,502 hours
(D) 1,600 hours
2. Sasha lives 1,493 miles from her grandmother. One year, Sasha's family made 4 round trips to visit her grandmother. How many miles did they travel in all?
(A) 5,972 miles
(B) 8,944 miles
(C) 11,944 miles
(D) 15,944 miles

Spiral Review

3. Yuna missed 5 points out of 100 points on her math test. What decimal number represents the part of her math test that she answered correctly? (Grade 4)
(A) 0.05
(B) 0.50
(C) 0.75
(D) 0.95
4. Which symbol makes the statement true? (Grade 4)
 $602,163$ ☐ $620,163$
(A) $>$
(B) $<$
(C) $=$
(D) \div
5. The number below represents the number of fans that attended Chicago Cubs baseball games in 2008. What is this number written in standard form? (Lesson 1.2)
 $(3 \times 1,000,000) + (3 \times 100,000) + (2 \times 100)$
(A) 33,300,200
(B) 30,300,200
(C) 3,300,200
(D) 330,200
6. A fair was attended by 755,082 people altogether. What is this number rounded to the nearest ten thousand? (Grade 4)
(A) 800,000
(B) 760,000
(C) 750,000
(D) 700,000

Name _____

Multiply by 2-Digit Numbers

Estimate. Then find the product.

1. Estimate: 4,000

$$\begin{array}{r} 82 \\ \times 49 \\ \hline 738 \\ + 3280 \\ \hline 4,018 \end{array}$$

2. Estimate: _____

$$\begin{array}{r} 92 \\ \times 68 \\ \hline \end{array}$$

3. Estimate: _____

$$\begin{array}{r} 396 \\ \times 37 \\ \hline \end{array}$$

4. 23×67

5. 86×33

6. 78×71

7. 309×29

8. 612×87

9. 476×72

Problem Solving



10. A company shipped 48 boxes of canned dog food. Each box contains 24 cans. How many cans of dog food did the company ship in all?

11. There were 135 cars in a rally. Each driver paid a \$25 fee to participate in the rally. How much money did the drivers pay in all?

Lesson Check

1. A chessboard has 64 squares. At a chess tournament 84 chessboards were used. How many squares are there on 84 chessboards?
(A) 4,816
(B) 5,036
(C) 5,166
(D) 5,376
2. Last month, a manufacturing company shipped 452 boxes of ball bearings. Each box contains 48 ball bearings. How many ball bearings did the company ship last month?
(A) 21,296
(B) 21,686
(C) 21,696
(D) 21,706

Spiral Review

3. What is the standard form of the number three million, sixty thousand, five hundred twenty? (Lesson 1.2)
(A) 3,060,520
(B) 3,065,020
(C) 3,600,520
(D) 3,652,000
4. What number completes the following equation? (Lesson 1.3)
 $8 \times (40 + 7) = (8 \times \square) + (8 \times 7)$
(A) 40
(B) 47
(C) 320
(D) 376
5. The population of Clarksville is about 6,000 people. What is Clarksville's population written as a whole number multiplied by a power of ten? (Lesson 1.4)
(A) 6×10^1
(B) 6×10^2
(C) 6×10^3
(D) 6×10^4
6. A sporting goods store ordered 144 cans of tennis balls. Each can contains 3 balls. How many tennis balls did the store order? (Lesson 1.6)
(A) 342
(B) 412
(C) 422
(D) 432

Name _____

Relate Multiplication to Division

Use multiplication and the Distributive Property to find the quotient.

1. $70 \div 5 =$ 14 2. $96 \div 6 =$ _____ 3. $85 \div 5 =$ _____

$(5 \times 10) + (5 \times 4) = 70$ _____ _____

$5 \times 14 = 70$ _____ _____

4. $84 \div 6 =$ _____ 5. $168 \div 7 =$ _____ 6. $104 \div 4 =$ _____

7. $171 \div 9 =$ _____ 8. $102 \div 6 =$ _____ 9. $210 \div 5 =$ _____

Problem Solving REAL WORLD

10. Ken is making gift bags for a party. He has 64 colored pens and wants to put the same number in each bag. How many bags will Ken make if he puts 4 pens in each bag?

11. Maritza is buying wheels for her skateboard shop. She ordered a total of 92 wheels. If wheels come in packages of 4, how many packages will she receive?

Lesson Check

- Which of the following expressions can be used to find $36 \div 3$?
(A) $(3 \times 10) + (3 \times 2)$
(B) $(6 \times 10) + (6 \times 2)$
(C) $(3 \times 12) + (3 \times 2)$
(D) $(2 \times 10) + (3 \times 12)$
- Which of the following expressions can be used to find $126 \div 7$?
(A) $(7 \times 20) + (7 \times 6)$
(B) $(7 \times 10) + (7 \times 8)$
(C) $(6 \times 20) + (6 \times 1)$
(D) $(2 \times 50) + (2 \times 13)$

Spiral Review

- Allison separates her 23 stickers into 4 equal piles. How many stickers does she have left over? (Grade 4)
(A) 27
(B) 19
(C) 5
(D) 3
- A website had 2,135,789 hits. What is the value of the digit 3? (Lesson 1.2)
(A) 30
(B) 3,000
(C) 30,000
(D) 300,000
- The area of Arizona is 114,006 square miles. What is the expanded form of this number? (Lesson 1.2)
(A) $(1 \times 100,000) + (1 \times 1,400) + (6 \times 1)$
(B) $(1 \times 100,000) + (1 \times 11,000) + (1 \times 4,000) + (6 \times 1)$
(C) $(1 \times 100,000) + (1 \times 10,000) + (4 \times 1,000) + (6 \times 1)$
(D) $(1 \times 11,000) + (1 \times 4,000) + (6 \times 1)$
- Which of the following shows the value of the fourth power of ten? (Lesson 1.4)
(A) 1,000
(B) 10,000
(C) 100,000
(D) 1,000,000

Name _____

**Problem Solving • Multiplication
and Division**

Solve the problems below. Show your work.

1. Dani is making punch for a family picnic. She adds 16 fluid ounces of orange juice, 16 fluid ounces of lemon juice, and 8 fluid ounces of lime juice to 64 fluid ounces of water. How many 8-ounce glasses of punch can she fill?

$$16 + 16 + 8 + 64 = 104 \text{ fluid ounces}$$

$$\begin{aligned} 104 \div 8 &= (40 + 64) \div 8 \\ &= (40 \div 8) + (64 \div 8) \\ &= 5 + 8, \text{ or } 13 \end{aligned}$$

13 glasses

2. Ryan has nine 14-ounce bags of popcorn to repackage and sell at the school fair. A small bag holds 3 ounces. How many small bags can he make?
-

3. Bianca is making scarves to sell. She has 33 pieces of blue fabric, 37 pieces of green fabric, and 41 pieces of red fabric. Suppose Bianca uses 3 pieces of fabric to make 1 scarf. How many scarves can she make?
-

4. Jasmine has 8 packs of candle wax to make scented candles. Each pack contains 14 ounces of wax. Jasmine uses 7 ounces of wax to make one candle. How many candles can she make?
-

5. Maurice puts 130 trading cards in protector sheets. He fills 7 sheets and puts the remaining 4 cards in an eighth sheet. Each of the filled sheets has the same number of cards. How many cards are in each filled sheet?
-

Lesson Check

1. Joyce is helping her aunt create craft kits. Her aunt has 138 pipe cleaners, and each kit will include 6 pipe cleaners. How many kits can they make?
(A) 13
(B) 18
(C) 22
(D) 23
2. Stefan plants seeds for 30 carrot plants and 45 beet plants in 5 rows, with the same number of seeds in each row. How many seeds are planted in each row?
(A) 10
(B) 14
(C) 15
(D) 80

Spiral Review

3. Georgia wants to evenly divide 84 trading cards between 6 friends. How many cards will each friend get? (Lesson 1.8)
(A) 12
(B) 13
(C) 14
(D) 16
4. Maria has 144 marbles. Emanuel has 4 times the number of marbles Maria has. How many marbles does Emanuel have? (Lesson 1.6)
(A) 36
(B) 140
(C) 566
(D) 576
5. The Conservation Society bought and planted 45 cherry trees. Each tree cost \$367. What was the total cost of planting the trees? (Lesson 1.7)
(A) \$3,303
(B) \$16,485
(C) \$16,515
(D) \$20,185
6. A sports arena covers 710,430 square feet of ground. A newspaper reported that the arena covers about 700,000 square feet of ground. To what place value was the number rounded? (Grade 4)
(A) hundreds
(B) thousands
(C) ten thousands
(D) hundred thousands

Name _____

Numerical Expressions

Write an expression to match the words.

1. Ethan collected 16 seashells. He lost 4 of them while walking home.

$$16 - 4$$

2. Yasmine bought 4 bracelets. Each bracelet cost \$3.

3. Amani did 10 jumping jacks. Then she did 7 more.

4. Darryl has a board that is 8 feet long. He cuts it into pieces that are each 2 feet long.

Write words to match the expression.

5. $3 + (4 \times 12)$

6. $36 \div 4$

7. $24 - (6 + 3)$

Draw a line to match the expression with the words.

8. Ray picked 30 apples and put them equally into 3 baskets. Then he ate two of the apples in a basket.

$$(3 \times 2) \times 30$$

9. Quinn had \$30. She bought a notebook for \$3 and a pack of pens for \$2.

$$(30 \div 3) - 2$$

10. Colleen runs 3 miles twice a day for 30 days.

$$30 - (3 + 2)$$

Problem Solving REAL WORLD

11. Kylie has 14 polished stones. Her friend gives her 6 more stones. Write an expression to match the words.

12. Rashad had 25 stamps. He shared them equally among himself and 4 friends. Then Rashad found 2 more stamps in his pocket. Write an expression to match the words.

Lesson Check

1. Jenna bought 3 packs of bottled water, with 8 bottles in each pack. Then she gave 6 bottles away. Which expression matches the words?
(A) $(3 + 8) + 6$
(B) $(3 \times 8) \times 6$
(C) $(3 \times 8) + 6$
(D) $(3 \times 8) - 6$
2. Stephen had 24 miniature cars. He gave 4 cars to his brother. Then he passed the rest of the cars out equally among 4 of his friends. Which operation would you use to represent the first part of this situation?
(A) addition
(B) subtraction
(C) division
(D) multiplication

Spiral Review

3. To find $36 + 29 + 14$, Joshua rewrote the expression as $36 + 14 + 29$. What property did Joshua use to rewrite the expression?
(Lesson 1.3)
(A) Commutative Property of Multiplication
(B) Commutative Property of Addition
(C) Associative Property of Addition
(D) Associative Property of Multiplication
4. There are 6 baskets on the table. Each basket has 144 crayons in it. How many crayons are there in all? (Lesson 1.6)
(A) 644
(B) 664
(C) 844
(D) 864
5. Mr. Anderson wrote $(7 \times 9) \times 10^3$ on the board. What is the value of that expression?
(Lesson 1.5)
(A) 630
(B) 6,300
(C) 63,000
(D) 630,000
6. Barbara mixes 54 ounces of granola and 36 ounces of raisins. She divides the mixture into 6-ounce servings. How many servings does she make? (Lesson 1.9)
(A) 3
(B) 12
(C) 15
(D) 96

Name _____

Evaluate Numerical Expressions

Evaluate the numerical expression.

1. $24 \times 5 - 41$
120 - 41

2. $(32 - 20) \div 4$

3. $16 \div (2 + 6)$

4. $15 \times (8 - 3)$

79

5. $4 \times 8 - 7$

6. $27 + 5 \times 6$

7. $3 \div 3 \times 4 + 6$

8. $14 + 4 \times 4 - 9$

Rewrite the expression with parentheses to equal the given value.

9. $3 \times 4 - 1 + 2$

value: 11

10. $2 \times 6 \div 2 + 1$

value: 4

11. $5 + 3 \times 2 - 6$

value: 10

Problem Solving



12. Sandy has several pitchers to hold lemonade for the school bake sale. Two pitchers can hold 64 ounces each, and four pitchers can hold 48 ounces each. How many total ounces can Sandy's pitchers hold?

13. At the bake sale, Jonah sold 4 cakes for \$8 each and 36 muffins for \$2 each. What was the total amount, in dollars, that Jonah received from these sales?

Lesson Check

1. What is the value of the expression $4 \times (4 - 2) + 6$?
(A) 6
(B) 14
(C) 24
(D) 40
2. Lannie ordered 12 copies of the same book for his book club members. The books cost \$19 each, and the order has a \$15 shipping charge. What is the total cost of Lannie's order?
(A) \$243
(B) \$213
(C) \$199
(D) \$161

Spiral Review

3. A small company packs 12 jars of jelly into each of 110 boxes to bring to the farmers' market. How many jars of jelly does the company pack in all? (Lesson 1.7)
(A) 1,220
(B) 1,320
(C) 1,350
(D) 2,300
4. June has 42 sports books, 85 mystery books, and 69 nature books. She arranges her books equally on 7 shelves. How many books are on each shelf? (Lesson 1.9)
(A) 12
(B) 18
(C) 28
(D) 196
5. Last year, a widget factory produced one million, twelve thousand, sixty widgets. What is this number written in standard form? (Lesson 1.2)
(A) 1,012,060
(B) 1,012,600
(C) 1,120,060
(D) 112,000,060
6. A company has 3 divisions. Last year, each division earned a profit of $\$5 \times 10^5$. What was the total profit the company earned last year? (Lesson 1.4)
(A) \$50,000
(B) \$150,000
(C) \$500,000
(D) \$1,500,000

Name _____

Grouping Symbols

Evaluate the numerical expression.

<p>1. $5 \times [(11 - 3) - (13 - 9)]$</p> <p>$5 \times [8 - (13 - 9)]$</p> <p>$5 \times [8 - 4]$</p> <p>$5 \times 4$</p> <p>20</p>	<p>2. $30 - [(9 \times 2) - (3 \times 4)]$</p>	<p>3. $36 \div [(14 - 5) - (10 - 7)]$</p>
<p>4. $7 \times [(9 + 8) - (12 - 7)]$</p>	<p>5. $[(25 - 11) + (15 - 9)] \div 5$</p>	<p>6. $[(8 \times 9) - (6 \times 7)] - 15$</p>
<p>7. $8 \times \{[(7 + 4) \times 2] - [(11 - 7) \times 4]\}$</p>	<p>8. $\{[(8 - 3) \times 2] + [(5 \times 6) - 5]\} \div 5$</p>	

Problem Solving REAL WORLD

Use the information at the right for 9 and 10.

9. Write an expression to represent the total number of muffins and cupcakes Joan sells in 5 days.

10. Evaluate the expression to find the total number of muffins and cupcakes Joan sells in 5 days.

Joan has a cafe. Each day, she bakes 24 muffins. She gives away 3 and sells the rest. Each day, she also bakes 36 cupcakes. She gives away 4 and sells the rest.

Lesson Check

1. What is the value of the expression?

$$9 \times [(21 - 4) - (2 + 7)]$$

- (A) 72
- (B) 108
- (C) 190
- (D) 198

2. Which expression has a value of 24?

- (A) $[(17 - 9) \times (3 + 2)] \div 2$
- (B) $[(17 + 9) - (3 + 2)] - 2$
- (C) $[(17 - 9) \times (3 \times 2)] \div 2$
- (D) $[(17 - 9) + (3 \times 2)] \times 2$

Spiral Review

3. What is $\frac{1}{10}$ of 200? (Lesson 1.1)

- (A) 2
- (B) 20
- (C) 2,000
- (D) 20,000

4. The Park family is staying at a hotel near an amusement park for 3 nights. The hotel costs \$129 per night. How much will their 3-night stay in the hotel cost? (Lesson 1.6)

- (A) \$67
- (B) \$369
- (C) \$378
- (D) \$387

5. Vidal bought 2 pizzas and cut each into 8 slices. He and his friends ate 10 slices. Which expression matches the words?

(Lesson 1.10)

- (A) $(2 + 8) - 10$
- (B) $(2 \times 8) - 10$
- (C) $(2 \times 8) + 10$
- (D) $(2 \times 10) - 8$

6. What is the value of the underlined digit in 783,549,201? (Lesson 1.2)

- (A) 4
- (B) 40
- (C) 40,000
- (D) 400,000

Name _____

Chapter 1 Extra Practice

Lessons 1.1 - 1.2

Complete the sentence.

1. 300 is 10 times as much as _____ .

2. 400 is $\frac{1}{10}$ of _____ .

Write the value of the underlined digit.

3. 45,130

4. 8,123,476

5. 153,471

6. 6,583,450

Lesson 1.3

Complete the equation, and tell which property you used.

1. $(18 \times 2) \times 5 = 18 \times (2 \times \underline{\hspace{2cm}})$

2. $64 + 58 = \underline{\hspace{2cm}} + 64$

Lessons 1.4 - 1.5

Find the value.

1. 10^2

2. 10^5

3. 6×10^3

4. 8×10^7

5. $(6 \times 7) \times 10^3$

6. $(5 \times 4) \times 10^2$

7. $(3 \times 9) \times 10^6$

8. $(5 \times 8) \times 10^0$

Lessons 1.6 - 1.7

Estimate. Then find the product.

1. Estimate _____

2. Estimate _____

3. Estimate _____

4. Estimate _____

$$\begin{array}{r} 429 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 1,785 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 81 \\ \times 22 \\ \hline \end{array}$$

$$\begin{array}{r} 558 \\ \times 44 \\ \hline \end{array}$$

5. 9×802

6. $3,699 \times 7$

7. 34×93

8. 678×87

Lessons 1.8 - 1.9

Solve.

1. Morton and three of his friends earned a total of \$168 walking dogs. They want to share the money equally. How much will each person get?

2. To make fruit salad, Sara uses 28 ounces of pineapple, 21 ounces of apples, 19 ounces of bananas, and 16 ounces of mango. How many 6-ounce servings of fruit salad can Sarah make?

Lesson 1.10

Write an expression to match the words.

1. Marilyn has 8 pears. She eats 2 pears.

2. Lee spends \$9 on 3 comic books. Each comic book costs the same amount.

3. Al bought 24 stickers. He gave away 11 stickers. Then he bought 8 more stickers.

4. Nicky has 4 boxes of markers. Each box contains 8 markers.

Lessons 1.11 - 1.12

Evaluate the numerical expression.

1. $3 + 4 \times 6$

2. $8 - 2 \times 3$

3. $5 \div 5 \times 7 + 1$

4. $8 + 56 - 8 \times 4$

5. $12 - (3 + 4)$

6. $[18 \div (2 \times 3)] \times 4$

7. $24 - \{[16 - (8 - 1)] \times 2\}$
