

APRIL 6TH

Add and Subtract Whole Numbers

Getting the Idea

In an addition problem, the numbers you add are called **addends**, and the result is called the **sum**. When you add and subtract whole numbers, sometimes you need to **regroup**.

Example 1

The new running track at Jerry's school is 3,960 feet longer than the old track. The old track was 1,320 feet long. How long is the new running track?

Strategy Write an equation for the problem, then solve.

Step 1

Write an equation for the problem.

Let t represent the length of the new track.

$$3,960 + 1,320 = t$$

Step 2

Rewrite the problem vertically and add. Line up the numbers by place value. Regroup if needed.

$$\begin{array}{r} 1 \\ 3,960 \\ + 1,320 \\ \hline 5,280 \end{array}$$

Solution The new running track at Jerry's school is 5,280 feet long.

In a subtraction problem, the number that is subtracted from is called the **minuend**, the number that is subtracted is called the **subtrahend**, and the result is called the **difference**.

Example 2

In the morning, a storm was 735 miles from the city. A few hours later, the storm was 129 miles from the city. How many miles had the storm moved?

Strategy Write an equation for the problem, then solve.

Step 1 Write an equation for the problem.

Let m represent the number of miles the storm moved.

$$735 - 129 = m$$

Step 2 Rewrite the problem vertically and subtract. Line up the numbers by place value.

$$\begin{array}{r} 735 \\ - 129 \\ \hline 606 \end{array}$$

Solution The storm moved 606 miles.

Addition and subtraction are **inverse operations**. They are operations that undo each other. You can write a related addition problem for any subtraction problem.

Example 3

Subtract. $562 - 380$

Strategy Use inverse operations to check your answer.

Step 1 Set up the problem. Line up the numbers by place value.

$$\begin{array}{r} 562 \\ - 380 \\ \hline \end{array}$$

Step 2 Subtract.

$$\begin{array}{r} 562 \\ - 380 \\ \hline 182 \end{array}$$

Step 3

Use addition to check your answer.

$$\begin{array}{r} 1 \\ 182 \\ + 380 \\ \hline 562 \end{array}$$

← difference
← subtrahend
← This should match the minuend.

Solution $562 - 380 = 182$

Guided Practice

At Washington Elementary School, there are 678 third graders and 784 fifth graders. How many more fifth graders than third graders are there?

Will you add or subtract to find how many more? _____

Set up and solve the problem. Regroup if needed.

Use addition to check your answer.

Add the difference to the subtrahend. The sum should be the minuend.

Does the sum match the minuend? _____

There are _____ more fifth graders than third graders at Washington Elementary School.

Lesson Practice • Part 1

Choose the correct answer.

- Find the sum. $495 + 671$
 - 176
 - 966
 - 1,066
 - 1,166
- Find the difference. $522 - 176$
 - 336
 - 346
 - 356
 - 356
- Find the sum. $2,458 + 398$
 - 2,746
 - 2,756
 - 2,856
 - 6,438
- Find the difference. $5,302 - 1,726$
 - 3,576
 - 3,586
 - 4,586
 - 7,028
- There are 365 days in a year. A library is closed for 96 days a year. For how many days is the library open in a year?
 - 259
 - 268
 - 269
 - 1,325
- Which can you use to check the difference of $517 - 126$?
 - $391 + 126$
 - $517 + 126$
 - $391 - 126$
 - $517 + 126$
- A chef makes party canapés. She makes 349 meatballs and 418 cheese straws for a customer. How many party canapés does the chef make for the customer?
 - 69
 - 767
 - 768
 - 867
- Akira has saved \$1,736 to buy a bicycle. He needs another \$1,386. How much does the bicycle cost?
 - \$2,022
 - \$3,012
 - \$3,022
 - \$3,122

9. Justice read two books. One book has 457 pages and the other book has 235 pages. Justice says he read a total of 682 pages. His work is shown below.

$$\begin{array}{r} 457 \\ + 235 \\ \hline 682 \end{array}$$

Is Justice correct? Explain.

10. A restaurant has seating for 528 people. If there are 367 people seated, how many more people can be seated? Show your work.

11. An episodic television show is 754 minutes long. Jody binge watches 406 minutes of the show on Saturday. How many minutes of the show are left for her to watch? Use inverse operations to check your answer. Show your work.

Lesson Practice • Part 2**Choose the correct answer.**

1. Add. $328 + 974$
 - A. 1,202
 - B. 1,292
 - C. 1,302
 - D. 1,312
2. Subtract. $915 - 220$
 - A. 685
 - B. 695
 - C. 785
 - D. 795
3. Add. $14,962 + 1,805$
 - A. 15,142
 - B. 15,767
 - C. 15,867
 - D. 16,767
4. Subtract. $23,674 - 18,059$
 - A. 5,415
 - B. 5,615
 - C. 7,616
 - D. 15,625
5. There are 365 days in a year. A school is closed for 168 days a year. For how many days is the school open in a year?
 - A. 177
 - B. 183
 - C. 197
 - D. 533
6. Which can you use to check the difference of $843 - 327$?
 - A. $843 + 327$
 - B. $516 - 327$
 - C. $843 + 327$
 - D. $516 + 327$
7. A pastry chef baked 216 berry muffins and 288 cinnamon muffins for a company's breakfast meeting. How many muffins did the chef bake for the meeting?
 - A. 404
 - B. 494
 - C. 504
 - D. 594
8. Saul has saved \$1,923 to buy a computer. He needs another \$219. How much does the computer cost?
 - A. \$1,132
 - B. \$2,142
 - C. \$2,162
 - D. \$3,142

9. For a school assignment, Justice read a book with 357 pages. Ona read a book with 403 pages. Ona says she read 56 pages more than Justice. Her work is shown below.

$$\begin{array}{r} 3013 \\ \cancel{403} \\ - 357 \\ \hline 56 \end{array}$$

Is Ona correct? Explain.

10. A fisherman catches 284 pounds of krill and 1,137 pounds of salmon. How many pounds of fish in all does the fisherman catch? Show your work.
11. The fifth graders are building a school garden. They have a budget of \$1,325. After purchasing soil, tools, and mulch they have \$394 remaining. How much money have they spent on garden supplies so far? Use inverse operations to check your answer. Show your work.

Lesson 1 Answers

Lesson 1

Guided Practice

At Washington Elementary School, there are 678 third graders and 784 fifth graders. How many more fifth graders than third graders are there?

Will you add or subtract to find how many more?

subtract

Set up and solve the problem. Regroup if needed.

$$\begin{array}{r} 714 \\ 784 \\ - 678 \\ \hline 106 \end{array}$$

Use addition to check your answer.

Add the difference to the subtrahend. The sum should be the minuend.

$$\begin{array}{r} 1 \\ 106 \\ + 678 \\ \hline 784 \end{array}$$

Does the sum match the minuend? **yes**

There are **106** more fifth graders than third graders at Washington Elementary School.

Lesson Practice Part 1

- D
- B
- C
- A
- C
- A
- B
- D
- No; Possible explanation: Justice should have regrouped the 12 ones as 1 ten and 2 ones, and then added the regrouped ten when he added the tens.

$$\begin{array}{r} 1 \\ 457 \\ + 235 \\ \hline 692 \end{array}$$

10. 161; Sample work:

$$\begin{array}{r} 412 \\ 878 \\ - 367 \\ \hline 161 \end{array}$$

11. 348 minutes; Sample work:

$$\begin{array}{r} 414 \\ 784 \\ - 406 \\ \hline 348 \end{array}$$

Check:

$$\begin{array}{r} 1 \\ 406 \\ + 348 \\ \hline 754 \end{array}$$

Lesson Practice Part 2

- C
- B
- D
- B
- C
- D
- C
- B
- No; Possible explanation: Ona should have regrouped the regrouped 10 tens as 9 tens and 13 ones.

$$\begin{array}{r} 9 \\ 31013 \\ 4003 \\ - 357 \\ \hline 46 \end{array}$$

10. 1,421 pounds; Sample work:

$$\begin{array}{r} 1,137 \\ + 284 \\ \hline 1,421 \end{array}$$

11. \$931; Sample work:

$$\begin{array}{r} 12 \\ 0812 \\ 1,825 \\ - 394 \\ \hline 931 \end{array}$$

Check:

$$\begin{array}{r} 1 \\ 394 \\ + 931 \\ \hline 1,325 \end{array}$$

APRIL 7TH

Multiply Whole Numbers

Getting the Idea

In a multiplication problem, the numbers you multiply are called **factors**, and the result is called the **product**. When multiplying two- or three-digit numbers, multiply by the ones and then the tens to find the partial products. Then add the partial products to find the product.

Example 1

Find the product.

$$523 \times 18 = \square$$

Strategy Multiply by the ones and then the tens. Add the partial products.

Step 1

Rewrite the problem vertically. Multiply 523 by the 8 ones in 18.

$$\begin{array}{r} 12 \\ 523 \\ \times 18 \\ \hline 4184 \end{array} \quad \leftarrow 8 \times 523$$

Step 2

Multiply 523 by the 1 ten in 18.

Write a 0 in the ones place before multiplying.

$$\begin{array}{r} 523 \\ \times 18 \\ \hline 4184 \\ 5230 \end{array} \quad \leftarrow 10 \times 523$$

Step 3

Add the partial products.

$$\begin{array}{r} 523 \\ \times 18 \\ \hline 4184 \\ + 5230 \\ \hline 9,414 \end{array}$$

Solution $523 \times 18 = 9,414$

You can write an **equation** to solve a real-world problem. Use a **variable** to represent the unknown value.

Example 2

Mrs. Robinson is the principal of a school with 465 students. The librarian told Mrs. Robinson that there are 16 times as many books in the library as there are students in the school. How many books are in the library?

Strategy Write an equation for the problem, then solve.

Step 1 Write an equation for the problem.

Let b represent the total number of books in the library.

$$465 \times 16 = b$$

Step 2 Rewrite the problem. Multiply 465 by the ones digit in 16.

$$\begin{array}{r} 33 \\ 465 \\ \times 16 \\ \hline 2790 \end{array} \quad \leftarrow 6 \times 465$$

Step 3 Multiply 465 by the tens digit in 16.

Use a 0 as a placeholder in the partial product.

$$\begin{array}{r} 465 \\ \times 16 \\ \hline 2790 \\ 4650 \end{array} \quad \leftarrow 10 \times 465$$

Step 4 Add the partial products.

$$\begin{array}{r} 465 \\ \times 16 \\ \hline 2790 \\ + 4650 \\ \hline 7,440 \end{array}$$

Solution There are 7,440 books in the library.

Example 3

The new A5 computer sells for \$1,499. Yesterday, Electronic World sold 23 of the A5 computers. How much money did Electronic World make from the sale of the A5 computers yesterday?

Strategy Write an equation for the problem, then solve.

Step 1 Write an equation for the problem.

Let m represent the total amount of money earned.

$$\$1,499 \times 23 = m$$

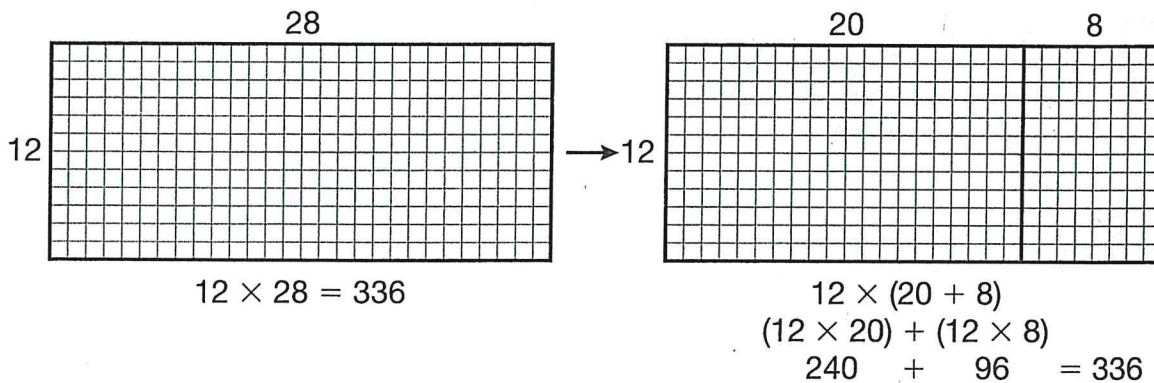
Step 2 Rewrite the problem vertically and multiply.

$$\begin{array}{r} 11 \\ 1\ 22 \\ 1,499 \\ \times\ 23 \\ \hline 4497 \\ 29980 \\ \hline 34,477 \end{array}$$

Solution Electronic World made \$34,477 from the sale of the A5 computers yesterday.

You can use the **distributive property** to multiply numbers. To use the distributive property, rewrite one of the factors as a sum of two or more numbers. Then multiply each of the **addends** by the other factor and add the products.

For example, this array model shows how to multiply 12×28 .



Example 4

Use the distributive property to find 65×128 .

Strategy Use the distributive property.

Step 1

Write the second factor as a sum of each place value.

$$128 = 100 + 20 + 8$$

Step 2

Multiply each addend by 65.

$$65 \times 128$$

$$\begin{aligned} 65 \times (100 + 20 + 8) &= (65 \times 100) + (65 \times 20) + (65 \times 8) \\ &= 6,500 + 1,300 + 520 \end{aligned}$$

Step 3

Add the products.

$$6,500 + 1,300 + 520 = 8,320$$

Solution $65 \times 128 = 8,320$

Example 5

A rug buyer bought 15 rugs that each cost \$462. How much did the rugs cost in all?

Strategy Write an equation for the problem. Use the distributive property.

Step 1

Write an equation for the problem.

Let c represent the total cost of the rugs.

$$15 \times \$462 = c$$

Step 2

Write the second factor as the sum of each place value.

$$462 = 400 + 60 + 2$$

Step 3

Multiply each addend by 15.

$$15 \times 462$$

$$\begin{aligned} 15 \times (400 + 60 + 2) &= (15 \times 400) + (15 \times 60) + (15 \times 2) \\ &= 6,000 + 900 + 30 \end{aligned}$$

Step 4

Add the products.

$$6,000 + 900 + 30 = 6,930$$

Solution The rugs cost \$6,930 in all.

Guided Practice

A theater sold 329 tickets to an afternoon performance for \$26 each. How much money did the theater take in for this performance?

Write an equation for the problem.

Let m represent the total amount of money.

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

Rewrite the problem.

Multiply 329 by the ones digit in 26.

What is the partial product? _____

Use a _____ as a placeholder in the ones place of the second partial product.

Multiply 329 by the tens digit in 26.

What is the partial product? _____

Add the _____ to find the product.

What is the product? _____

The theater took in _____ for this performance.

Lesson Practice • Part 1

Choose the correct answer.

1. What is the product?

$$\begin{array}{r} 651 \\ \times 22 \\ \hline \end{array}$$

- A. 2,604
B. 5,874
C. 13,222
D. 14,322
2. $2,543 \times 56 = \square$
A. 27,973
B. 142,408
C. 143,679
D. 144,951
3. Which expression has the greatest product?
A. 65×14
B. 43×16
C. 55×15
D. 70×12
4. A restaurant has seating for 165 people. The restaurant offers a \$15 buffet. If the restaurant is full and everyone orders the buffet, how much money will the restaurant earn?
A. \$990
B. \$2,475
C. \$2,525
D. \$2,575
5. Malik answered 121 math questions last week. If he completes 121 math questions each week for 36 weeks, how many math questions will Malik complete in all?
A. 157
B. 4,356
C. 6,747
D. 8,832
6. A bus line has 64 buses in its fleet. Each of the buses can seat 84 passengers. How many passengers can the fleet of buses seat at one time?
A. 5,166
B. 5,366
C. 5,376
D. 5,476

Lesson Practice • Part 2

Choose the correct answer.

1. What is the product?

$$\begin{array}{r} 827 \\ \times 48 \\ \hline \end{array}$$

- A. 38,696
B. 39,346
C. 39,496
D. 39,696
2. Silvertown has an area of 36 square miles. The population density of Silvertown is 1,425 people. How many people live in Silvertown?
A. 52,200
B. 51,300
C. 49,300
D. 41,070
3. Sam is going to multiply a 3-digit whole number times a 2-digit whole number. He will make the greatest product he can make and the least product he can make. What is the difference between products?
A. 80,011
B. 87,901
C. 97,901
D. 99,901
4. Multiply: $639 \times 74 = \square$
A. 46,556
B. 46,586
C. 47,286
D. 48,286
5. Each day Mia spends 45 minutes on the treadmill. There are 365 days in a year. How many minutes will Mia spend on the treadmill in a year?
A. 16,425 minutes
B. 16,225 minutes
C. 16,125 minutes
D. 15,425 minutes
6. Each ticket for a concert costs \$88. There are 7,250 available tickets. If each ticket is sold, how much money will be earned in ticket sales?
A. \$616,000
B. \$621,600
C. \$633,600
D. \$638,000

7. During an event, 92 T-shirts and 38 sweatshirts were purchased. The T-shirts cost \$24 each and the sweatshirts cost \$42 each. How much money was earned in shirt sales during the event?
- A. \$3,494
B. \$3,804
C. \$4,290
D. \$4,776
8. Multiply: $607 \times 34 = \square$
- A. 20,418
B. 20,438
C. 20,638
D. 22,780
9. Each person who buys a monthly pass at Park Here pays \$27. There were 324 people that bought monthly passes. If 324 parking passes are bought each month, how much money is earned in 12 months?
- A. \$104,976
B. \$92,526
C. \$8,748
D. \$3,888
10. Multiply: $7,036 \times 52 = \square$
- A. 364,562
B. 364,872
C. 365,562
D. 365,872
-
11. For each event in an auditorium, tickets on the first floor cost \$65 each. Tickets for the second floor cost \$45 each. There are 375 seats on the first floor and 284 tickets on the second floor.
- A. If the event is a sell out, how much money is earned? Show your work.
- B. The auditorium hosts 64 events each year. If each is a sell out, how much money will be earned? Show your work.

Lesson 2 Answers

Lesson 2

Guided Practice

$$329 \times \$26 = m$$

$$\begin{array}{r} 1 \\ 329 \\ \times 26 \\ \hline 1974 \\ + 6580 \\ \hline 8,554 \end{array}$$

What is the partial product? **1974**

Use a **0** as a placeholder in the ones place of the second partial product.

What is the partial product? **6580**

Add the **partial products** to find the product.

What is the product? **8,554**

The theater took in **\$8,554** for this performance.

Lesson Practice Part 1

- D
- B
- A
- B
- B
- C
- C
- C
- A. $140 \times 12 = (140 \times 10) + (140 \times 2) = 1,400 + 280 = 1,680$
B. \$20,160; $1,680 \times 12 = 20,160$

Lesson Practice Part 2

- D
- B
- C
- C
- A

- D
- B
- C
- A
- D

11. A. \$37,155; Possible work:
 $(375 \times \$65) + (284 \times \$45) = \$24,375 + \$12,780 = \$37,155$
B. \$2,377,920; Possible work: $\$37,155 \times 64 = \$2,377,920$

APRIL 8TH

Divide Whole Numbers

Getting the Idea

In a division problem, the number that is being divided is the **dividend**. The number that divides the dividend is the **divisor**. The answer to a division problem is the **quotient**. If there is a number left over after the division is complete, then the quotient has a **remainder**.

Example 1

There are 851 seats in an auditorium. Each of the 23 rows in the auditorium has the same number of seats. How many seats are in each row?

Strategy Write an equation for the problem. Then divide.

Step 1

Write an equation for the problem.

Let s represent the number of seats in each row.

$$851 \div 23 = s$$

Step 2

Set up the division problem.

$$\begin{array}{r} 23 \overline{)851} \end{array}$$

Step 3

Decide where to place the first digit in the quotient.

The first digit of the quotient will be in the tens place.

Step 4

Divide 85 tens.

$$\begin{array}{r} 3 \\ 23 \overline{)851} \\ \underline{-69} \\ 16 \end{array} \quad \begin{array}{l} \leftarrow 3 \times 23 = 69 \\ \leftarrow 85 - 69 = 16 \end{array}$$

Step 5

Bring down the 1 one. Divide 161 ones.

$$\begin{array}{r} 37 \\ 23 \overline{)851} \\ \underline{-69} \\ 161 \\ \underline{-161} \\ 0 \end{array} \quad \begin{array}{l} \leftarrow 7 \times 23 = 161 \\ \leftarrow 161 - 161 = 0 \end{array}$$

Solution There are 37 seats in each row.

Since multiplication and division are **inverse operations**, you can check division by using multiplication. Multiply the quotient by the divisor. If the product equals the dividend, the quotient is correct.

$$\begin{array}{r} 37 \\ \times 23 \\ \hline 111 \\ + 740 \\ \hline 851 \end{array}$$

← The product equals the dividend, so the quotient is correct.

When solving a division word problem with a remainder, you need to interpret the remainder. You may ignore the remainder, add 1 to the quotient, or the remainder may be the answer.

Example 2

Tina has 426 stickers. She divides them equally among 15 friends. How many stickers will each friend get?

Strategy Write an equation for the problem. Then divide.

Step 1

Write an equation for the problem.

Let s represent the number of stickers each friend will get.

$$426 \div 15 = s$$

Step 2

Set up the problem. The first digit of the quotient will be in the tens place.

Divide 42 tens.

$$\begin{array}{r} 2 \\ 15 \overline{)426} \\ \underline{- 30} \quad \leftarrow 2 \times 15 = 30 \\ 12 \quad \leftarrow 42 - 30 = 12 \end{array}$$

Step 3

Bring down the 6 ones. Divide 126 ones.

$$\begin{array}{r} 28 \text{ R}6 \\ 15 \overline{)426} \\ \underline{- 30} \downarrow \\ 126 \\ \underline{- 120} \quad \leftarrow 8 \times 15 = 120 \\ 6 \quad \leftarrow 126 - 120 = 6 \end{array}$$

Step 4 Interpret the remainder.

There are 6 stickers left over. There is no way to divide 6 stickers among 15 friends, so drop the remainder.

Solution Each friend will get 28 stickers.

You can also check a quotient with a remainder. Multiply the quotient by the divisor and add the remainder to the product.

$$28 \times 15 = 420 \quad 420 + 6 = 426 \quad \leftarrow \text{The sum equals the dividend.}$$

Example 3

Spencer wants to put his 2,188 stamps in a binder. Each page in the binder holds 24 stamps. How many stamps will be on the last page in the binder?

Strategy Divide each place from left to right.

Step 1 Set up the division problem.

$$24 \overline{)2,188}$$

Step 2 Divide each place from left to right.

$$\begin{array}{r} 91 \text{ R}4 \\ 24 \overline{)2188} \\ \underline{-216} \\ 28 \\ \underline{-24} \\ 4 \end{array}$$

Step 3 Interpret the remainder.

The quotient is 91. That means 91 pages are full with 24 stickers on each page.

The remainder is 4. That means there are 4 stickers left over.

The question asks how many stamps will be on the last page of the binder, so the remainder is the answer.

Solution There will be 4 stamps on the last page in the binder.

Most of the time, it is a good idea to estimate an answer to a computation problem before you find the exact answer. An **estimate** will give you an idea of what the exact answer should be close to. **Rounding** is one way to estimate an answer.

Example 4

Estimate the quotient of $584 \div 32$.

Strategy Round each number to its greatest place.

Step 1 Round each number to its greatest place.

584 rounds to 600.

32 rounds to 30.

Step 2 Divide the rounded numbers.

$$600 \div 30 = 20$$

Solution The quotient of $584 \div 32$ is about 20.

Another way to estimate an answer is to use **compatible numbers**. Compatible numbers are numbers that you can compute easily in your head. When using compatible numbers, choose a pair of numbers that are close to the numbers in the problem. Replace the numbers in the problem with the compatible numbers. Then compute mentally with the new numbers.

Example 5

Estimate the quotient of $284 \div 87$.

Strategy Use compatible numbers to estimate the quotient.

Step 1 Use basic multiplication or division facts to find compatible numbers.

$$3 \times 9 = 27$$

$$27 \div 9 = 3$$

87 is close to 90.

270 is close to 284 and can be easily divided by 90.

Step 2 Estimate the quotient using the compatible numbers.

$$270 \div 90 = 3$$

Solution The quotient of $284 \div 87$ is about 3.

Guided Practice

Katie has 568 oranges to put into bags. Each bag can hold 12 oranges. How many bags does Katie need for all the oranges?

Write the problem below that you can use to help answer the question. Then solve it.

The quotient is _____.

The remainder is _____.

The quotient means that _____ bags can be filled with 12 oranges.

The remainder means that there will be _____ oranges left over.

Interpret the remainder. The question asks how many bags Katie needs for all the oranges, so _____.

You can check your answer by multiplying _____ times _____ and adding _____.

Katie needs _____ bags for all the oranges.

Lesson Practice • Part 1

Choose the correct answer.

- $17 \overline{)323}$
 - 18
 - 19
 - 20
 - 21
- $31 \overline{)496}$
 - 14 R2
 - 15
 - 15 R8
 - 16
- $72 \overline{)9,234}$
 - 100 R34
 - 121 R22
 - 128 R18
 - 129 R46
- Which is the best estimate of the quotient of $186 \div 82$?
 - 2
 - 3
 - 4
 - 5
- In which problem will the quotient be greater than 100?
 - $5,982 \div 54$
 - $6,348 \div 67$
 - $7,204 \div 73$
 - $8,423 \div 87$
- Guy is reading a science fiction book that is 558 pages long. If he reads 28 pages each day, how many days will it take him to read the book?
 - 19 days
 - 20 days
 - 26 days
 - 28 days
- Jorge saved \$115 to spend on CDs. How many CDs can he buy if each one costs \$12?
 - 12
 - 10
 - 9
 - 7

8. A maximum of 24 people can ride the Jackrabbit roller coaster at one time. If 761 people are in line for the coaster, how many trips will the coaster have to make for all to ride?

- A. 32
- B. 31
- C. 30
- D. 17

9. An arena has 5,744 seats. The seats are divided into 16 sections with the same number of seats in each section. How many seats are in each section?

- A. 349
- B. 359
- C. 369
- D. 379

10. Simone collects refrigerator magnets. She has 756 magnets in her collection.

A. If each box can hold 22 magnets, how many boxes can Simone fill completely with her magnets? Show your work.

B. How many boxes will Simone need to hold all of her magnets? Explain how you interpreted the remainder to answer parts A and B.

Lesson Practice • Part 2

Choose the correct answer.

- Which is the best estimate of the quotient of $815 \div 39$?
 - 20
 - 22
 - 33
 - 40
- The book that Santiago is reading is 1,127 pages. He plans on reading 36 pages each day. How many days will it take Santiago to complete the book?
 - 32 days
 - 31 days
 - 30 days
 - 11 days
- During his vacation Doug took 3,145 photos with his digital camera. His vacation lasted 17 days. How many photos did Doug take per day?
 - 125
 - 185
 - 187
 - 197
- What is the quotient?

$$\begin{array}{r} 46 \overline{)3,691} \\ \end{array}$$
 - 80 R11
 - 82 R19
 - 84 R37
 - 86 R35
- There are 732 students trying out for baseball teams. There will be exactly 15 players on each team. How many students will not make a baseball team?
 - 2
 - 3
 - 12
 - 48
- Genesis now has 1,404 stamps in her U.S. collection. That is 18 times as many stamps as she has in her foreign collection. How many stamps does Genesis have in her foreign collection?
 - 72
 - 73
 - 77
 - 78

7. Victoria divided $1,694 \div 47$ and got a quotient of 36. Without performing the entire division, Daleyza said that Victoria made an error. Which sentence is true?

- A. Daleyza is incorrect because Victoria is correct.
- B. Daleyza is correct because if Victoria were correct the ones place in the dividend would have to be 2.
- C. Daleyza is correct because an estimate would show that the quotient is less than 30 because $1,500 \div 50 = 30$.
- D. Daleyza is correct because an estimate would show that the quotient is greater than 40 because $1,600 \div 40 = 40$.

8. For which situation should a remainder be ignored?

- A. when finding the part of a number that is not included in a group
- B. when finding the number of items of a type that are needed when there are extra
- C. when finding the number of complete groups when some are left after division
- D. when finding the number of complete groups when none are left after division

9. Zeke has a total of 9,840 baseball cards. He keeps the cards in 42 boxes that each have the same number of cards.

A. How many cards are in each box? Show your work.

B. What does the remainder represent?

Lesson 3 Answers

Lesson 3

Guided Practice

$$\begin{array}{r} 47 \text{ R}4 \\ 12 \overline{)568} \\ \underline{-48} \\ 88 \\ \underline{-84} \\ 4 \end{array}$$

The quotient is 47.

The remainder is 4.

The quotient means that 47 bags can be filled with 12 oranges.

The remainder means that there will be 4 oranges left over.

The question asks how many bags Katie needs for all the oranges, so **round the quotient up to the nearest whole number**.

You can check your answer by multiplying 12 times 47 and adding 4.

Katie needs 48 bags for all the oranges.

Lesson Practice Part 1

1. B
2. D
3. C
4. A
5. A

6. B
7. C
8. A
9. B

10. A. 34; Possible work:

$$\begin{array}{r} 34 \\ 22 \overline{)756} \\ \underline{-66} \\ 96 \\ \underline{-88} \\ 8 \end{array}$$

B. 35; Possible explanation:

$756 \div 22 = 34 \text{ R}8$,
so Simone can fill 34 boxes and she will have 8 magnets left over. She needs another box for the 8 magnets left over, so she needs 35 boxes to hold all of her magnets.

Lesson Practice Part 2

1. A
2. A
3. B
4. A
5. C
6. D
7. B
8. C
9. A. 234; Possible work:
 $9,840 \div 42 = 234 \text{ R}12$
B. The remainder represents the number of cards that are not in one of the boxes.

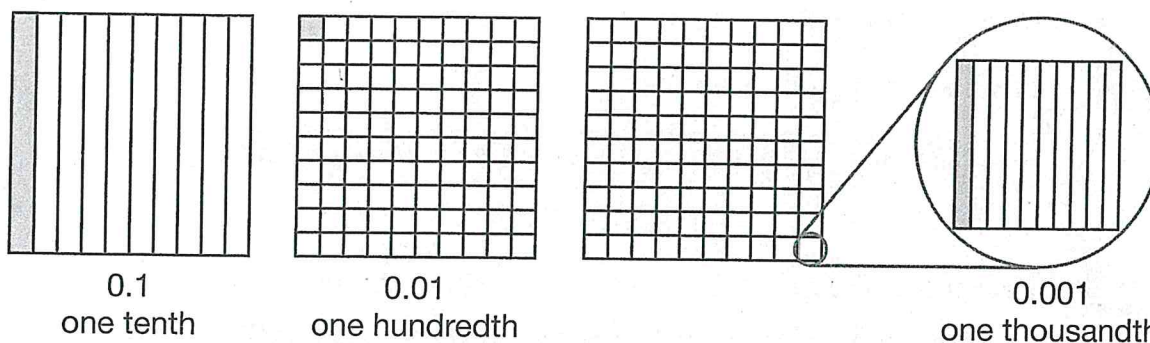
APRIL 9TH

Read and Write Decimals

Getting the Idea

A **decimal** is a number with a decimal point. A **decimal point** (.) separates the ones place from the tenths place.

The grids below represent one tenth, one hundredth, and one thousandth.



To read or write a decimal number less than one, read the number to the right of the decimal point. Then read the least place value. For example, 0.7 is *seven tenths*, and 0.36 is *thirty-six hundredths*.

To read or write a decimal number greater than 1, use the word *and* to separate the whole-number part from the decimal part. For example, 2.003 is *two and three thousandths*.

There are different ways to read and write decimals.

Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
1	9	6	.	7	4	8

base-ten numeral: 196.748

number name: one hundred ninety-six and seven hundred forty-eight thousandths

expanded form: $100 + 90 + 6 + 0.7 + 0.04 + 0.008$

Each place in a decimal has a value that is 10 times the value of the place to its right. For example, in 6.666, the 6 in the hundredths place has a value of 0.06. That is 10 times the value of the 6 in the thousandths place.

$$0.006 \times 10 = 0.06$$

Each place in a decimal has a value that is $\frac{1}{10}$ the value of the place to its left.

For example, in 6.666, the 6 in the thousandths place has a value of 0.006. That is $\frac{1}{10}$ the value of the 6 in the hundredths place.

Example 1

A lab sample has a mass of 0.222 gram. What is the value of the 2 in the thousandths place in relation to the 2 in the hundredths place?

Strategy Use a place-value chart.

Step 1

Write each digit of the number in a chart.

Ones	.	Tenths	Hundredths	Thousandths
0	.	2	2	2

Step 2

Find the value of the 2 in the thousandths place: 0.002.

The digit to its left is in the hundredths place: 0.02.

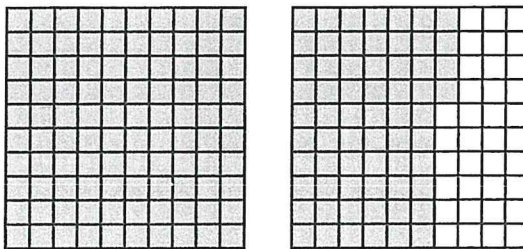
$$0.002 \div 0.02 = \frac{1}{10}$$

The value of the 2 in the thousandths place is $\frac{1}{10}$ the value of the 2 in the hundredths place.

Solution The value of the 2 in the thousandths place is $\frac{1}{10}$ the value of the 2 in the hundredths place.

Example 2

What decimal describes the shaded part of the grids?



Strategy Count the number of small shaded squares in each grid.

Step 1

There are 100 small squares in the grid on the left and all are shaded.

Each small square is one hundredth, or 0.01.

So the entire grid is equal to 100×0.01 or 1.

Step 2

There are 100 small squares in the grid on the right and 64 are shaded.

Each small square is one hundredth, or 0.01.

So the shaded squares are equal to 64×0.01 or 0.64.

Step 3

Write the decimal for each grid and combine them.

$$1 + 0.64 = 1.64$$

Solution

The decimal **1.64**, or one and sixty-four hundredths, describes the shaded part of the grids.

Example 3

The winning speed in a car race was 125.044 miles per hour. How do you write that speed in expanded form?

Strategy

Make a place-value chart to find the value of each digit.

Step 1

Write the decimal in a place-value chart.

Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
1	2	5	.	0	4	4

Step 2

Find the value of each digit.

$$1 \text{ hundred} = 1 \times 100 = 100$$

$$2 \text{ tens} = 2 \times 10 = 20$$

$$5 \text{ ones} = 5 \times 1 = 5$$

$$4 \text{ hundredths} = 4 \times 0.01 = 0.04$$

$$4 \text{ thousandths} = 4 \times 0.001 = 0.004$$

Step 3

Write the expanded form of the number.

$$125.044 = 100 + 20 + 5 + 0.04 + 0.004$$

Solution

In expanded form, **125.044** is written as $100 + 20 + 5 + 0.04 + 0.004$.

Another way to write expanded form is with multiplication.

For example, write 347.392 in expanded form.

$$347.392 = 300 + 40 + 7 + 0.3 + 0.09 + 0.002$$

Then write 347.392 in expanded form with multiplication.

Multiply each digit in the number by the value its place represents. You can use fractions or decimals to write a number in expanded form. The fraction $\frac{1}{10}$ is equivalent to the decimal 0.1.

$$347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times \frac{1}{10} + 9 \times \frac{1}{100} + 2 \times \frac{1}{1000}$$

Example 4

Write the decimal 468.721 in expanded form with multiplication.

Strategy Use a place-value chart.

Step 1

Write the decimal in a place value chart.

Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
4	6	8	.	7	2	1

Step 2

Show each digit as a multiplication expression.

$$4 \text{ hundreds} \rightarrow 4 \times 100$$

$$6 \text{ tens} \rightarrow 6 \times 10$$

$$8 \text{ ones} \rightarrow 8 \times 1$$

$$7 \text{ tenths} \rightarrow 7 \times \frac{1}{10}$$

$$2 \text{ hundredths} \rightarrow 2 \times \frac{1}{100}$$

$$1 \text{ thousandth} \rightarrow 1 \times \frac{1}{1000}$$

Step 3

Write the expanded form with multiplication.

$$4 \times 100 + 6 \times 10 + 8 \times 1 + 7 \times \frac{1}{10} + 2 \times \frac{1}{100} + 1 \times \frac{1}{1000}$$

Solution $468.721 = 4 \times 100 + 6 \times 10 + 8 \times 1 + 7 \times \frac{1}{10} + 2 \times \frac{1}{100} + 1 \times \frac{1}{1000}$

Guided Practice

The currency of China is the yuan. When Alana went to China, \$1 was worth about 6.837 yuan. What is the number name and the expanded form with multiplication for 6.837?

To write the number name, first write the decimal in a place-value chart.

Ones	.	Tenths	Hundredths	Thousandths

Separate the decimal into two parts: the whole-number part and the decimal part.

Write the number name for 6. _____

Write the word that separates the whole-number part from the decimal part. _____

Write the decimal part as you would a whole number. _____

What is the least place value of the decimal part? _____

The number name for 6.837 is _____.

Write the expanded form with multiplication.

Find the value of each digit.

6 ones = _____

8 tenths = _____

3 hundredths = _____

7 thousandths = _____

Write the expanded form. $6.837 =$ _____

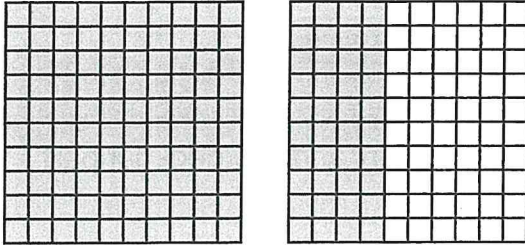
Write the expanded form with multiplication.

$6.837 =$ _____

Lesson Practice • Part 1

Choose the correct answer.

1. What decimal represents the part of the grids that is shaded?



- A. 1.04
B. 1.06
C. 1.4
D. 1.6
2. Which shows two and twelve thousandths written using base-ten numerals?
A. 2.012
B. 2.102
C. 2.12
D. 2.201
3. In the decimal 99.999, which is $\frac{1}{10}$ the value of the 9 in the tenths place?
A. The 9 in the tens place.
B. The 9 in the ones place.
C. The 9 in the hundredths place.
D. The 9 in the thousandths place.
4. Which has a value 10 times greater than 0.008?
A. 0.08
B. 0.8
C. 8
D. 80
5. The land speed record for one mile is seven hundred sixty-three and thirty-five thousandths miles per hour. Which shows the decimal in expanded form?
A. $700 + 60 + 3 + 0.3 + 0.05$
B. $700 + 60 + 3 + 0.03 + 0.005$
C. $700 + 60 + 3 + 30 + 5$
D. $700 + 30 + 5 + 0.6 + 0.03$
6. If the mass of Earth is equal to 1, the mass of Mercury is 0.055. Which is the number name for Mercury's mass?
A. fifty-five
B. fifty-five tenths
C. fifty-five hundredths
D. fifty-five thousandths

7. Which has $\frac{1}{10}$ the value of 0.01?
- A. 0.001
 - B. 0.1
 - C. 10
 - D. 1,000
8. Which is the expanded form with multiplication for 836.205?
- A. $8 \times 1,000 + 3 \times 100 + 60 \times 1 + 2 \times \frac{1}{10} + 5 \times \frac{1}{1000}$
 - B. $8 \times 1,000 + 3 \times 100 + 6 \times 1 + 2 \times \frac{1}{10} + 5 \times \frac{1}{1000}$
 - C. $8 \times 100 + 3 \times 10 + 6 \times 1 + 2 \times \frac{1}{10} + 5 \times \frac{1}{1000}$
 - D. $8 \times 100 + 3 \times 10 + 6 \times 1 + 2 \times \frac{1}{100} + 5 \times \frac{1}{1000}$
9. Randy said that the number 0.03 has a value 10 times greater than 0.003.
- A. Is he correct? Explain your answer.

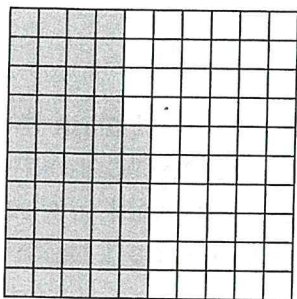
- B. What number is ten times greater than 0.3? Explain your answer.

Lesson Practice • Part 2

Choose the correct answer.

- The gold medal winning time in the women's 100-meter backstroke in the 2012 Summer Olympics was 58.33 seconds. Which shows the number name for the number of seconds?
 - five and eight hundred thirty-three thousandths
 - fifty-eight and thirty-three thousandths
 - fifty-eight and thirty-three hundredths
 - five thousand, eight hundred thirty-three
- Which describes the relationship between the 4 in 26.492 and the 4 in 4.15?
 - The 4 in 26.492 has $\frac{1}{100}$ the value of the 4 in 4.15.
 - The 4 in 26.492 has $\frac{1}{10}$ the value of the 4 in 4.15.
 - The 4 in 26.492 has 10 times the value of the 4 in 4.15.
 - The 4 in 26.492 has 100 times the value of the 4 in 4.15.
- Jupiter has a rotational inclination of one and three hundred four thousandths degrees. Which shows the number of degrees written in expanded form?
 - $1 + \frac{3}{100} + \frac{4}{1,000}$
 - $1 + \frac{3}{10} + \frac{4}{1,000}$
 - $1 + \frac{3}{10} + \frac{4}{100}$
 - $10 + 3 + \frac{4}{1,000}$
- The winning speed at the 2014 Brickyard 400 was one hundred fifty and two hundred ninety-seven thousandths miles per hour. Which shows that number of miles per hour using base-ten numerals?
 - 152.907
 - 152.097
 - 150.297
 - 105.297

5. Which decimal represents the shaded part of the grid using a number name?



- A. forty-six hundredths
 B. forty-six thousandths
 C. forty-six hundreds
 D. forty-six thousands
6. Which decimal has 2 fewer tens and 4 more thousandths than 2,638.172?
- A. 6,618.172
 B. 2,638.212
 C. 2,638.152
 D. 2,618.176

7. The winner of a computer game is the person who finishes in the least amount of time. Jade finished a game in 40.056 seconds. Which shows Jade's time in seconds in expanded form?

- A. $40 + 0.05 + 0.006$
 B. $40 + 0.5 + 0.006$
 C. $40 + 0.5 + 0.06$
 D. $40 + 5 + 0.6$

8. Which describes the relationship between the 7 in 386.742 and the 7 in 4,028.173?

- A. The 7 in 386.742 has $\frac{1}{100}$ the value of the 7 in 4,028.173.
 B. The 7 in 386.742 has $\frac{1}{10}$ the value of the 7 in 4,028.173.
 C. The 7 in 386.742 has 10 times the value of the 7 in 4,028.173.
 D. The 7 in 386.742 has 100 times the value of the 7 in 4,028.173.

9. On a recent trip to Mexico, Mr. Gomez received an exchange rate of 13.026 pesos for each dollar.

- A. Write 13.026 in expanded form using fractions for the decimal places.

- B. Write 13.026 in expanded form using decimals for the decimal places.

- C. Write the number name for 13.026.

Lesson 4 Answers

Lesson 4

Guided Practice

To write the number name, first write the decimal in a place-value chart.

Ones	.	Tenths	Hundredths	Thousandths
6	.	8	3	7

Write the number name for 6. **six**

Write the word that separates the whole-number part from the decimal part. **and**

Write the decimal part as you would a whole number. **eight hundred thirty-seven**

What is the least place value of the decimal part?
thousandths

The number name for 6.837 is **six and eight hundred thirty-seven thousandths**.

Find the value of each digit.

$$6 \text{ ones} = 6 \times 1 = 6$$

$$8 \text{ tenths} = 8 \times 0.1 = 0.8$$

$$3 \text{ hundredths} = 3 \times 0.01 = 0.03$$

$$7 \text{ thousandths} = 7 \times 0.001 = 0.007$$

Write the expanded form.

$$6.837 = 6 + 0.8 + 0.03 + 0.007$$

Write the expanded form with multiplication.

$$6.837 = 6 \times 1 + 8 \times 0.1 + 3 \times 0.01 + 7 \times 0.001$$

Lesson Practice Part 1

- C
- A
- C
- A
- B
- D
- A
- C
- A. Yes; Possible explanation: I know that 3 in the hundredths place is 10 times as great as 3 in the thousandths place.
B. 3; Possible explanation: I know that 3 in the ones place is 10 times as great as the 3 in the tenths place.

Lesson Practice Part 2

- C
- B
- B
- C
- A
- D
- A

8. C

9. A. $10 + 3 + \frac{2}{100} + \frac{6}{1,000}$

B. $10 + 3 + 0.02 + 0.006$

C. thirteen and twenty-six thousandths

APRIL 10TH

Add Decimals

Getting the Idea

You can add decimals the same way you add whole numbers. Just align the numbers on the decimal points and write a decimal point in the sum. Remember, when the sum of a column is 10 or greater, you will have to **regroup** 10 of that unit as 1 of the next greater unit. For example, 12 hundredths can be regrouped as 1 tenth and 2 hundredths.

$$\begin{array}{r} 1 \\ 1.53 \\ + 2.09 \\ \hline 3.62 \end{array}$$

Example 1

Find the sum: $5.6 + 0.1 = \square$.

Strategy Use mental math.

Think: What is 6 tenths plus 1 tenth? 7 tenths

$$5.6 + 0.1 = 5.7$$

Solution $5.6 + 0.1 = 5.7$

Example 2

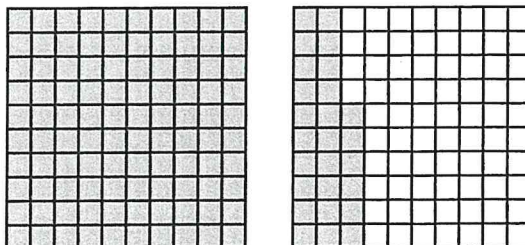
Find the sum: $1.26 + 0.65 = \square$.

Strategy Use models.

Step 1

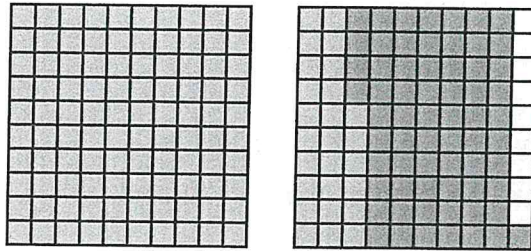
Model the greater decimal using grids.

Use two grids and shade the first one completely. 1.26 is one and twenty-six hundredths. So, shade 26 squares in the second grid.



Step 2 Use the same model to add 0.65.

0.65 is sixty-five hundredths, so shade 65 more squares in the second grid.



Step 3 Write the total number of shaded squares as a decimal.

One grid is completely shaded, so it represents 1.

The other grid has 91 squares shaded, so it represents 0.91.

Together, the grids show the decimal 1.91.

Solution $1.26 + 0.65 = 1.91$

Example 3

Amir recorded the snowfall during the first week of February. On Monday he recorded 12.78 inches, and on Thursday he recorded another 13.65 inches. How much snow did Amir record for the first week of February?

Strategy Write an equation for the problem. Then add each place from right to left.

Step 1 Write an equation for the problem.

Let s represent the number of inches of snow for the first week of February.

$$12.78 + 13.65 = s$$

Step 2 Rewrite the problem vertically.

Align the numbers on the decimal point.

Write the decimal point in the sum.

$$\begin{array}{r} 12.78 \\ + 13.65 \\ \hline \end{array}$$

Step 3

Add the hundredths: $8 + 5 = 13$ hundredths.

Regroup 13 hundredths as 1 tenth 3 hundredths.

$$\begin{array}{r} 1 \\ 12.78 \\ + 13.65 \\ \hline .3 \end{array}$$

Step 4

Add the tenths: $1 + 7 + 6 = 14$ tenths.

Regroup 14 tenths as 1 one 4 tenths.

$$\begin{array}{r} 11 \\ 12.78 \\ + 13.65 \\ \hline .43 \end{array}$$

Step 5

Add the ones: $1 + 2 + 3 = 6$ ones.

$$\begin{array}{r} 11 \\ 12.78 \\ + 13.65 \\ \hline 6.43 \end{array}$$

Step 6

Add the tens: $1 + 1 = 2$ tens.

$$\begin{array}{r} 11 \\ 12.78 \\ + 13.65 \\ \hline 26.43 \end{array}$$

Solution Amir recorded **26.43** inches of snow for the first week in February.

Sometimes it may be necessary to write an equivalent decimal before computing. Inserting a 0 at the right end of a decimal does not change its value.

Example 4

Find the sum: $2.45 + 6.7 = \square$.

Strategy Add each place from right to left.

Step 1

Align the numbers on the decimal point.

Insert a 0 to the right of 6.7.

Now both addends have the same number of places.

$$\begin{array}{r} 2.45 \\ + 6.70 \\ \hline \end{array}$$

Step 2

Write the decimal point in the sum. Add from right to left.

$$5 + 0 = 5 \text{ hundredths}$$

$$4 + 7 = 11 \text{ tenths}$$

Regroup 11 tenths as 1 one 1 tenth.

$$1 + 2 + 6 = 9 \text{ ones}$$

$$\begin{array}{r} 1 \\ 2.45 \\ + 6.70 \\ \hline 9.15 \end{array}$$

Solution $2.45 + 6.7 = 9.15$

You can use the properties of operations to make computation easier.

<p>Additive identity property of 0 The sum of any number and 0 is that number.</p>	$a + 0 = 0 + a = a$	$8.7 + 0 = 0 + 8.7 = 8.7$
<p>Commutative property of addition The order of addends can be changed. The sum does not change.</p>	$a + b = b + a$	$4.2 + 3.6 = 3.6 + 4.2$ $7.8 = 7.8$
<p>Associative property of addition Addends can be grouped in different ways. The sum will be the same.</p>	$(a + b) + c =$ $a + (b + c)$	$3.4 + (2.6 + 6.5) =$ $(3.4 + 2.6) + 6.5$ $3.4 + (2.6 + 6.5) =$ $3.4 + 9.1 = 12.5$ $(3.4 + 2.6) + 6.5 =$ $6 + 6.5 = 12.5$

Example 5

What number is missing from the equation below?

$$5.39 + \square = 2.47 + 5.39$$

Strategy Use the commutative property of addition.

The commutative property of addition states that changing the order of the addends does not change the sum.

$$5.39 + 2.47 = 2.47 + 5.39$$

Solution The missing number is 2.47.

You can use an **estimate** to check if answers are reasonable. If an estimate is not close to the actual answer, an error was made in finding the answer. You can estimate by rounding to the nearest whole number or nearest dollar.

Example 6

Robert bought a sandwich for \$2.29, a drink for \$0.99, and a cookie for \$1.59. How much did Robert spend in all?

Strategy Estimate the amount spent. Then find the actual cost.

Step 1

Round each amount to the nearest dollar. Then add.

\$2.29 rounds down to \$2.00

\$0.99 rounds up to \$1.00

\$1.59 rounds up to \$2.00

$\$2.00 + \$1.00 + \$2.00 = \5.00

The total should be about \$5.00.

Step 2

Add the costs of the items.

Align the numbers on the decimal point.

$$\begin{array}{r} 12 \\ \$2.29 \\ 0.99 \\ + 1.59 \\ \hline \$4.87 \end{array}$$

Step 3

Compare the actual answer to the estimate.

\$4.87 is close to \$5.00.

\$4.87 is a reasonable answer.

Solution Robert spent \$4.87.

Guided Practice

Harrison weighed three samples during science class. The samples had masses of 5.64 grams, 9.5 grams, and 2.07 grams. Estimate the total mass of the three samples. Then find the actual total mass of the samples.

Find the estimated total mass. Round each mass to the nearest whole number.

5.64 rounds _____ to _____.

9.5 rounds _____ to _____.

2.07 rounds _____ to _____.

Add the rounded numbers: _____ + _____ + _____ = _____

The estimated mass of the three samples is _____ grams.

Find the actual total mass. Write and solve the addition problem.

Do all the digits have the same number of places to the right of the decimal point? _____

To write the problem, you need to insert a 0 to the right of _____.

Make sure the decimal points are _____.

Find the actual mass.

The actual mass of the 3 samples is _____ grams.

Is the actual answer close to the estimate? _____

The total mass of the samples is _____ grams.

Lesson Practice • Part 1

Choose the correct answer.

1. Find the sum.

$$\begin{array}{r} 28.65 \\ + 14.93 \\ \hline \end{array}$$

- A. 32.58
- B. 42.58
- C. 43.58
- D. 43.68

2. Find the sum.

$$5.82 + 9.7 = \square$$

- A. 15.89
- B. 15.52
- C. 14.89
- D. 14.52

3. Find the sum.

$$7.09 + 0.01 = \square$$

- A. 7.01
- B. 7.1
- C. 7.19
- D. 7.91

4. Which shows the additive identity property of 0?

- A. $4.5 + 0.8 = 0.8 + 4.5$
- B. $3.8 + (1.2 + 8.9) = (3.8 + 1.2) + 8.9$
- C. $6.7 + 3.3 = 10.0$
- D. $7.2 + 0 = 7.2$

5. Bruce bought a movie ticket for \$7.50, popcorn for \$3.95, and a drink for \$2.25. How much money did Bruce spend in all?

- A. \$12.60
- B. \$12.70
- C. \$13.60
- D. \$13.70

6. Eva drove 9.8 miles to visit her brother and then drove 2.5 miles to visit her sister. How many miles did Eva drive in all?

- A. 11.3 miles
- B. 11.8 miles
- C. 12.3 miles
- D. 12.8 miles

7. One year, a city had 21.65 inches of rain. The next year the city had 28.7 inches of rain. How many inches of rain fell during the two years?
- A. 50.35 inches
 - B. 49.72 inches
 - C. 49.35 inches
 - D. 40.35 inches
8. Last year Kelvin was 56.5 inches tall. Since then he has grown 3.75 inches. How tall is Kelvin now?
- A. 59.25 inches
 - B. 59.8 inches
 - C. 60.25 inches
 - D. 60.8 inches

9. Maya mailed three packages. Their weights were 4.5 pounds, 2.75 pounds, and 3.4 pounds.

A. What was the total weight of the three packages?

B. Explain how you found your answer for part A.

10. Estelle says that 0.001 more than 356.742 is 356.743. Jerry says that 0.001 more than 356.742 is 356.842. Who is correct? Explain.

Lesson Practice • Part 2

Choose the correct answer.

1. Which number makes this sentence true?

$$9.25 + \square = 9.25$$

- A. 0
 - B. 1
 - C. 8.25
 - D. 9.25
2. Find the sum.

$$4.72 + 8.67 + 3.28 = \square$$

- A. 15.57
 - B. 15.67
 - C. 16.57
 - D. 16.67
3. Destiny bought a skirt for \$27.92 and a matching top for \$18.79. How much money did Destiny spend in all?
- A. \$45.61
 - B. \$45.71
 - C. \$46.61
 - D. \$46.71

4. Find the sum.

$$5,167.38 + 392.4 = \square$$

- A. 5,579.78
 - B. 5,559.78
 - C. 5,559.42
 - D. 5,206.62
5. Which number makes this sentence true?

$$36.48 + \square = 87.29 + 36.48$$

- A. 36.48
 - B. 40.81
 - C. 87.29
 - D. 126.77
6. It takes Mercury 87.97 days to revolve around the Sun. It takes Venus 136.73 more days than Mercury to revolve around the Sun. How many days does it take Venus to revolve around the Sun?
- A. 224.7 days
 - B. 223.7 days
 - C. 214.6 days
 - D. 213.6 days

7. Which number is 0.1 more than 35.72?
- A. 35.73 C. 36.72
B. 35.82 D. 45.72
8. The women's world record for the triple jump is 15.5 meters. The men's world record in the triple jump is 2.79 meters greater than the women's record. What is the men's world record in the triple jump?
- A. 4.34 meters
B. 17.29 meters
C. 17.84 meters
D. 18.29 meters
9. Which number is 0.01 more than 93.648?
- A. 93.649 C. 93.748
B. 93.658 D. 94.648
10. Three friends want to buy a pizza. Zach has \$6.29, Ian has \$3.65, and Emilio has \$2.35. How much money do the three boys have altogether?
- A. \$13.29
B. \$13.19
C. \$12.29
D. \$12.19

11. At a bookstore, Bailey bought a book for \$12.59, a magazine for \$3.79, and a poster for \$8.99. After buying the items, she had \$17.86 left.

A. How much did Bailey spend at the bookstore? Show your work.

B. How much money did Bailey have before shopping? Show your work.

Lesson 5 Answers

Lesson 5

Guided Practice

5.64 rounds **up** to **6**.

9.5 rounds **up** to **10**.

2.07 rounds **down** to **2**.

Add the rounded numbers: $6 + 10 + 2 = 18$

The estimated mass of the three samples is **18** grams.

Do all the digits have the same number of places to the right of the decimal point? **no**

To write the problem, you need to insert a 0 to the right of **9.5**.

Make sure the decimal points are **lined up**.

Find the actual mass.

$$\begin{array}{r} 11 \\ 5.64 \\ 9.50 \\ + 2.07 \\ \hline 17.21 \end{array}$$

The actual mass of the 3 samples is **17.21** grams.

Is the actual answer close to the estimate? **yes**

The total mass of the samples is **17.21** grams.

Lesson Practice Part 1

1. C

2. B

3. B

4. D

5. D

6. C

7. A

8. C

9. A. 10.65 pounds

B. Possible explanation: I aligned the numbers on the decimal point. Then I inserted a 0 to the right of 4.5 and 3.4 so all the addends would have the same number of places. I placed the decimal point in the sum and added the numbers.

10. Estelle is correct.; Possible explanation: Jerry did not use the correct place values. He added to the tenths place and not the thousandths place.

Lesson Practice Part 2

1. A

2. D

3. D

4. B

5. C

6. A

7. B

8. D

9. B

10. C

11. A. \$25.37; Possible work:

$$\$12.59 + \$3.79 +$$

$$\$8.99 = \$25.37$$

B. \$43.23; Possible work:

$$\$25.37 + \$17.86 =$$

$$\$43.23$$