



Mathematics

3

Homework Practice and Problem-Solving Practice Workbook

Contents Include:

- 117 Homework Practice worksheets—one for each lesson
- 117 Problem-Solving Practice worksheets—one for each lesson to apply lesson concepts in a real-world situation

California
Mathematics
3

**Homework Practice
and Problem-Solving
Practice Workbook**



Macmillan/McGraw-Hill

TO THE TEACHER These worksheets are the same ones found in the Chapter Resource Masters for *California Mathematics, Grade 3*. The answers to these worksheets are available at the end of each Chapter Resource Masters booklet.



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Name _____ Date _____

1-1**Homework Practice****3NS1.1***Number Patterns***Identify the pattern. Then find the missing numbers.**

- 1.** 3, _____, 9, _____, 15 **2.** 111, 115, _____, 123, 127
3. 50, 40, _____, 20, _____ **4.** 48, 46, _____, 42, _____
5. 98, 100, _____, 104, _____ **6.** 7, _____, 11, _____, 15

- 7.** Some friends volunteer at a pet shelter. If the pattern continues, how many hours will Antonio and Vanessa volunteer?

Vincent	2 hours
Rachel	5 hours
Alex	8 hours
Antonio	_____
Vanessa	_____

Spiral Review**Write how many tens and ones.** (Previous Grade)

- 8.** 36 ones = _____ tens _____ ones
9. 18 ones = _____ tens _____ ones
10. 73 ones = _____ tens _____ ones
11. 65 ones = _____ tens _____ ones
12. 9 ones = _____ tens _____ ones
13. 28 ones = _____ tens _____ ones
14. 97 ones = _____ tens _____ ones
15. 11 ones = _____ tens _____ ones
16. Kayla has 25 beads. She gives 5 beads to a friend. How many beads does she have left? (Previous Grade)

Problem-Solving Practice

3NS1.1

Number Patterns

Solve.

1. Jasmine lives at 62 Elm Street. The house numbers on her side of the street increase by 2. There are 4 houses on the street. If Jasmine's house is the first house, what is the address of the last house?
-

2. Juan draws 16 triangles. He colors every fourth triangle blue. How many blue triangles are there?
-

3. The football team runs five more laps each day. If they run 10 laps on Monday, how many laps will they run on Friday?
-

4. Danielle is saving for a bicycle. Her last four bank deposits were \$16, \$19, \$22, and \$25. If the pattern continues, how much will her next bank deposit be?
-

5. Hannah's new puppy gains 2 pounds each week. If the puppy weighed 7 pounds in the first week, how much will it weigh in the fifth week?
-

6. The average temperature increases 3 degrees each month from May through August. If the average temperature in May is 74 degrees, what is the average temperature in August?
-

Homework Practice*Problem-Solving Strategy***3MR1.1, 3NS2.1****Solve. Use the four-step plan.**

- 1.** Tania starts a game with 300 points. In four rounds of the game, she adds 25 points each round. How many points does Tania have at the end of four rounds?
-
- 2.** Victoria buys a toy for 13¢. If she gives the cashier a dime and a nickel, how much change will she get?
-
- 3.** Sylvia's game piece is on box 25 of a game board. She moves it ahead 5 boxes, three times. Where is her game piece now?
-
- 4.** Rebecca and Haley went to a fair. Each girl bought four different kinds of cookies. How many kinds of cookies did they buy in all?
-

Spiral Review**Identify the pattern. Then find the missing numbers. (Lesson 1–1)**

5. 8, 10, _____, 14, _____, _____

6. 76, _____, 72, _____, _____

7. 55, _____, 65, _____, _____

8. 108, 105, _____, 99, _____

9. 560, 660, _____, _____, 960

10. 15, _____, 21, 24, _____

- 11.** Henry draws 5 circles, 10 circles, 15 circles, and then 20 circles. If the pattern continues, how many circles will Henry draw in the next row?
-

- 12.** Fran likes to buy flowers each week. The first week she buys 1 flower, the second week she buys 3 flowers, and the third week she buys 5 flowers. If the pattern continues, how many will she buy in the fifth week?
-

Name _____ Date _____

1–3**Homework Practice****3NS1.3, 3NS1.5***Place Value through 1,000***Write each number in expanded form and word form.****1.** 2,368

Expanded form: _____

Word form: _____

2. 4,572

Expanded form: _____

Word form: _____

Write the place of the underlined digit. Then write the value of the digit.**3.** 567 _____**4.** 6,327 _____**Write each number in standard form.****5.** $5,000 + 500 + 3$ _____**6.** $2,000 + 300 + 20 + 9$ _____**Spiral Review****Solve. Use the four-step plan. (Lesson 1–2)**

7. Lauren and Christina went to the store to buy cheese for a party. Each bought 3 different kinds of cheese. How many different kinds of cheese did they buy?

8. Erin practiced 2 songs on her flute on Monday. On Tuesday she practiced 4 songs and on Wednesday she practiced 6 songs. If the pattern continues, how many songs will she practice on Friday?

Problem-Solving Practice

3NS1.3, 3NS1.5

Place Value through 1,000

Solve.

1. There are 4,563 seats in a local sports arena. Write that number in expanded notation.
-

2. How many tens are there in 7,652?
-

3. The Harris family traveled 1,355 miles to San Francisco. How many more tens than hundreds are in the number of miles they traveled?
-

4. Mr. Holt wrote this number on the board:

$$4,000 + 40 + 7$$

What number is this in standard form?

5. A Spanish dictionary in the library has 1,324 pages. A French dictionary has 200 more pages than the Spanish dictionary. How many pages are in the French dictionary?
-

6. Kyle is in seat number 1,024. The number on Sierra's seat has the same number of thousands and tens as Kyle's number, but 2 more hundreds and 3 fewer ones than Kyle's number. What is Sierra's seat number?
-

Name _____ Date _____

1–4**Homework Practice****3NS1.3, 3NS1.5***Place Value through 10,000***Write the place of each underlined digit. Then write its value.**

1. 4,559 _____

2. 48,351 _____

3. 55,303 _____

4. 67,842 _____

5. 23,901 _____

6. 15,221 _____

Write each number in expanded form.

7. 60,872 _____

8. 34,759 _____

9. 1,259 _____

Write each number in standard form.

10. $50,000 + 4,000 + 900 + 80 + 2$ _____

11. $40,000 + 3,000 + 300 + 70 + 7$ _____

Spiral Review**Write each number in standard form. (Lesson 1–3)**

12. $3,000 + 500 + 90 + 2$ _____

13. $1,000 + 400 + 20 + 8$ _____

14. $6,000 + 30 + 5$ _____

15. $5,000 + 500 + 5$ _____

Solve.

16. Jacob bought 2 tropical fish on Monday, 5 on Tuesday, and 8 on Wednesday. If this pattern continues, how many tropical fish will he buy on Thursday?
-

Problem-Solving Practice**3NS1.3, 3NS1.5***Place Value through 10,000***Solve.**

1. The North Avenue Library owns 45,672 books. Write that number in expanded form.

2. The town that Jose lives in has 31,988 people. What is the value of the 9 in this number?

3. Last month, Fresh Juice Company sold 54,019 bottles of orange juice. What is the value of the 4 in this number?

4. There are $70,000 + 5,000 + 400$ flowers in the Mayville Town Park. In standard form, how many flowers are there?

5. Use the two clues below to find the five-digit number.

Clue 1: Each digit increases by one. For example: 45,678.

Clue 2: If you add all six numbers, the answer is 20.

What is the five-digit number?

Homework Practice**3MR1.1, 3NS2.1***Problem-Solving Investigation***Solve using the four-step plan.**

- 1.** The pine tree in Mr. George's yard is 35 feet tall. The oak tree in his yard is 43 feet tall. How much taller is the oak tree than the pine tree?
-

- 2.** Miranda's garden has three rows. There are 13 rose plants in the first row, 7 lily plants in the second row, and 12 daisy plants in the third row. How many plants are in Miranda's garden?
-

- 3.** Jason's dog is 13 inches tall. David's dog is 12 inches taller than Jason's dog. How tall is David's dog?
-

Spiral Review

Write the place of each underlined digit. Then write its value. (Lesson 1–4)

- 4.** 85,609
-

- 5.** 47,898
-

- 6.** 34,332
-

Name _____ Date _____

1–6**Homework Practice****3NS1.2***Compare Numbers***Compare. Write $>$, $<$, or $=$.**

1. $751 \text{ } \bigcirc \text{ } 715$

4. $435 \text{ } \bigcirc \text{ } 543$

7. $808 \text{ } \bigcirc \text{ } 880$

2. $322 \text{ } \bigcirc \text{ } 332$

5. $673 \text{ } \bigcirc \text{ } 376$

8. $918 \text{ } \bigcirc \text{ } 819$

3. $121 \text{ } \bigcirc \text{ } 211$

6. $788 \text{ } \bigcirc \text{ } 877$

9. $727 \text{ } \bigcirc \text{ } 772$

Solve.

10. The June concert sold 544 tickets. The July concert sold 455 tickets. Which concert sold a greater number of tickets?
-

11. On Wednesday, there were 101 ants in the backyard. On Thursday, there were 110 ants in the backyard. On which day were there fewer ants, Wednesday or Thursday?
-

Spiral Review**Solve using the *four-step plan*. (Lesson 1–5)**

12. Lynn's loaf of bread has 24 slices. If she uses 8 slices to make four sandwiches, how many more sandwiches can she make?
-

13. Mason played piano for 1 hour on Monday. On Tuesday, he played for 30 minutes longer. On Wednesday, he played for 15 minutes longer than Tuesday. How long did he play piano on Wednesday?
-

Problem-Solving Practice

3NS1.2

Compare Numbers

Solve.

1. Julia has read 120 pages of her book for her book report.

Deanna has read 112 pages. Who has read more pages so far?

2. A printer costs \$244. A video game system costs \$233. Which costs less, the printer or the video game system?
-

3. Mrs. Fallon gave her class a multiple-choice test. There were 145 questions on the test. Philip answered 134 questions correctly. Nicole answered 141 questions correctly. Who scored higher on the test?
-

How can you tell? _____

4. The skateboard that Pedro wants to buy costs thirty-five dollars at Nino's Skate Shop. The same skateboard costs \$43 at Manny's Skateboard Central. At which store should Pedro buy his skateboard? Tell why.
-

5. Niko, Paul, and Jon all want to win a prize for selling the most fruit. Niko has 367 points, Paul has 455 points, and Jon has 437 points. To win a prize, you must have at least 435 points. Who will not win a prize?
-

Name _____ Date _____

1–7**Homework Practice****3NS1.2***Order Numbers***Order the numbers from *greatest* to *least*.**

- 1.** 5,668; 5,886; 8,585 _____
- 2.** 5,660; 6,550; 6,560 _____
- 3.** 6,432; 4,634; 4,346 _____
- 4.** 7,701; 7,101; 7,001 _____

Order the numbers from *least* to *greatest*.

- 5.** 9,544; 9,455; 9,564 _____
- 6.** 7,878; 7,087; 7,778 _____
- 7.** 3,553; 3,335; 3,355 _____
- 8.** 6,461; 4,641; 6,641 _____

Spiral Review**Compare. Write $>$, $<$, or $=$. (Lesson 1–6)**

- | | | |
|---------------------|-------------------------|-------------------------|
| 9. 55 58 | 11. 539 539 | 13. 2,998 2,889 |
| 10. 654 645 | 12. 6,443 6,533 | 14. 692 629 |

Solve.

- 15.** The Jacksons and the Chens went on vacation. The Jacksons drove 235 miles. The Chens drove 325 miles. Which family drove farther?
-

Problem-Solving Practice

3NS1.2

Order Numbers

Solve.

1. Jill's soccer team has 14 members. Nick's team has 12 members. Danielle's team has 17 members. Write the teams in order from the greatest to least number of members.
-

2. A crate has 319 tomatoes, 99 onions, and 255 potatoes. Write the foods in order from the least to the greatest number of foods.
-

Car Type	Cost	Number Sold
Sports Car	\$20,398	1,309
Sedan	\$14,990	3,980
Compact	\$9,887	2,881

3. According to the table, which car costs the most money?
-

4. Write the names of the cars in order from the least number sold to the greatest number of cars sold.
-

5. Gigi has 698 paper clips. Robert has 898 paper clips. Toby has 500 more paper clips than Gigi. Who has the least number of paper clips?
-

Name _____ Date _____

1–8**Homework Practice****3NS1.4***Round to the Nearest 10 and 100***Round to the nearest ten.**

1. 56 _____

2. 588 _____

3. 444 _____

4. 648 _____

5. 506 _____

6. 409 _____

Round to the nearest hundred.

7. 569 _____

8. 1,413 _____

9. 2,978 _____

10. 915 _____

11. 5,533 _____

12. 1,119 _____

Spiral Review**Order the numbers from *least* to *greatest*. (Lesson 1–7)**

13. 5,688; 5,866; 5,668 _____

14. 4,209; 4,029; 4,299 _____

15. 6,877; 6,788; 7,899 _____

16. 3,362; 3,382; 3,128 _____

Order the numbers from *greatest* to *least*.

17. 5,551; 5,051; 5,105 _____

18. 3,225; 2,335; 3,235 _____

19. 9,876; 9,879; 9,987 _____

20. 1,027; 1,207; 1,072 _____

21. 8,600; 8,006; 8,060 _____

22. 7,474; 7,447; 7,744 _____

Problem-Solving Practice

3NS1.4

Round to the Nearest 10 and 100

Solve.

1. It takes Juan 13 minutes to walk to the store near his home.
About how many minutes does it take to the nearest ten?

2. Garrett's dog weighs 48 pounds. About how much does the dog weigh to the nearest ten?

3. There are 509 televisions at Sam's Electronics. There are 449 cables. To the nearest hundred, how many televisions are there?

To the nearest hundred, how many cables are there?

4. The U.S. Bank Tower in Los Angeles is 1,017 feet tall. How tall is it to the nearest hundred feet?

5. Which three-digit numbers round to 500 when rounded to the nearest hundred, and also round to 460 when rounded to the nearest ten?

Name _____ Date _____

1–9**Homework Practice****3NS1.4***Round to the Nearest 1,000***Round to the nearest thousand.**

1. 4,569 _____

3. 1,284 _____

5. 8,877 _____

2. 3,569 _____

4. 8,440 _____

6. 2,899 _____

Solve.

7. Luis and his family flew 1,487 miles last summer while on vacation. Rounded to the nearest thousand, how many miles did they fly?
-

8. Miles bought a lawn mower that cost \$3,556. To the nearest thousand, how much did the lawn mower cost?
-

Spiral Review**Round to the nearest ten. (Lesson 1–8)**

9. 54 _____

11. 323 _____

13. 578 _____

10. 143 _____

12. 193 _____

14. 566 _____

Round to the nearest hundred.

15. 2,349 _____

17. 3,441 _____

19. 3,219 _____

16. 677 _____

18. 5,788 _____

20. 8,892 _____

21. 155 _____

22. 4,975 _____

23. 6,864 _____

Problem-Solving Practice

3NS1.4

Round to the Nearest 1,000

Solve.

1. The Hanson's new refrigerator cost \$1,085. How much did the refrigerator cost to the nearest thousand dollars?

2. The distance from Los Angeles to St. Louis is 1,845 miles. What is the distance between the cities to the nearest thousand miles?

3. The Morrisons paid \$9,825 to have their house remodeled. The Wongs paid \$400 less. How much to the nearest thousand dollars did the Wongs pay?

4. Hector lives in a city with a population of 8,702 people. What is the city's population to the nearest thousand?

5. The top-selling toy for 2005 had sales of 4,229. To the nearest thousand, about how many toys were sold in 2005?

6. The Garcias bought a pool for \$7,567. What is the price rounded to the nearest thousand?

Name _____ Date _____

2–1**Homework Practice****3NS2.1, 3AF1.1***Addition Properties***Find each sum. Identify the property shown.**

1. $5 + 4 =$

4 + 5 =

2. $46 + 0 =$

3. $(7 + 9) + 3 =$

$(7 + 3) + 9 =$

4. $1 + (9 + 5) =$

$(1 + 9) + 5 =$

Find each missing number. Identify the property shown.

5. $(0 + 7) + 3 = \boxed{\quad} + (7 + 3)$

6. $20 + 40 = 40 + \boxed{\quad}$

Spiral Review**Round to the nearest thousand. (Lesson 1–9)**

7. 4,801

8. 3,192

9. 6,592

10. 5,038

Problem-Solving Practice

3NS2.1, 3AF1.1

Addition Properties

Solve.

1. For a science project, Pedro must find 20 autumn leaves. So far, he's collected 9 yellow leaves, 5 red leaves, and 1 orange leaf. How many leaves does he have so far? How many more does he need? Which addition property did you use?
-

2. In order to solve a math problem, Ryan switched the parentheses from

$$7 + (3 + 6) \text{ to } (7 + 3) + 6.$$

He told his teacher that he'd used the Commutative Property of Addition. Was he correct?

3. Tamika is making a bracelet. She is using 3 wooden beads, 5 gold beads, 4 blue beads, 5 silver beads, and 3 black beads. What is the total number of beads in her bracelet?
-

4. Jose has 9 T-shirts, 2 sweaters, 3 long-sleeved pullovers, and 1 jacket. Find how many tops he has. Which property will make your addition easier?
-

5. Rita has collected items to take to her recycling center. She has 7 boxes of paper, 2 bags of bottles, and 1 bag of cans. How many bags and boxes does she have?
-

Name _____ Date _____

2-2**Homework Practice****3MR2.5***Problem-Solving Skill***Tell whether an estimate or an exact answer is needed.****Then solve.**

- 1.** The principal of Sydney Elementary School wants at least 50 students to enter the National Poetry Contest. In Mr. Ogden's class, 19 students entered the contest. In Miss Lee's class, 9 students entered. Are there enough students entered? Explain.
-
-

- 2.** The Coopertown Museum of Art has 12 sculptures and 39 pieces of pottery. About how many total pieces of art does the museum have?
-

- 3.** At Marta's school library, there are 16 shelves of novels and 21 shelves of history books. How many shelves are there in all?
-

Spiral Review**Find each sum. Identify the property shown. (Lesson 2-1)**

4. $12 + (3 + 4) =$

$(12 + 3) + 4 =$

5. $5 + 4 + 2 =$

$5 + 2 + 4 =$



Name _____ Date _____

2–3**Homework Practice****3NS1.4***Estimate Sums***Estimate each sum using rounding.**

1. $54 + 86$ _____

2. $15 + 29$ _____

3. $12 + 81$ _____

4. $28 + 76$ _____

Estimate each sum using front-end estimation.

5. $46 + 89$ _____

6. $38 + 45$ _____

7. $12 + 99$ _____

8. Last Saturday, 73 people worked out at the Ferndale Fitness Center. On Sunday, 65 people worked out. About how many people were at the fitness center on those two days?
-

Spiral Review

**Tell whether an estimate or an exact answer is needed.
Then solve. (Lesson 2–2)**

9. Filipa wants to learn karate. One month of classes costs \$55, and a karate suit costs \$35. How much will she pay?
-

10. Every Sunday, Jamila and her family visit her grandparents. Then they go to visit her aunt. Her family drives 49 miles to see her grandparents and drives 17 more miles to her aunt's house. How many miles do they drive?
-

Problem-Solving Practice

3NS1.4

Estimate Sums

Solve.

1. If Kiki buys a digital camera that costs \$73 and a book that costs \$12, about how much will she pay?
-

2. Michelle has saved \$11 from her allowance, and her sister Maria has saved \$13. They want to buy their mother a \$30 pair of earrings for Mothers' Day. Together, will they have enough money? Explain.
-

Use the information below for Exercises 3 and 4.

The Centerville Store sells items for the following prices:

hat	\$12
shirt	\$17

3. Using front-end estimation, about how much will it cost if Robert buys a hat and a shirt?
-

4. Two sisters are each buying a hat and a shirt. Estimate by rounding to find about how much their items will cost in all.
-

Name _____ Date _____

2–4**Homework Practice****3NS2.1***Two-Digit Addition***Add. Check for reasonableness.**

1. $32 + 6$ _____

2. $44 + 13$ _____

3. $19 + 49$ _____

4. $21 + 34$ _____

5. $25 + 3$ _____

6. $46 + 10$ _____

7. 35
 $+ 16$

8. 23
 $+ 63$

9. 14
 $+ 76$

Solve.

10. At the Park School Soccer Camp, 27 girls and 25 boys attended. How many attended in all?
-

11. There are 54 small fish and 27 big fish in a pond. How many fish are there altogether?
-

Spiral Review**Estimate each sum using rounding. (Lesson 2–3)**

12. $19 + 48$ _____

13. $22 + 58$ _____

14. $43 + 46$ _____

Estimate each sum using front-end estimation.

15. $27 + 24$ _____

16. $92 + 44$ _____

17. $79 + 17$ _____

Problem-Solving Practice**3NS2.1***Two-Digit Addition***Solve.**

- 1.** In the Ripple Creek Zoo, there are four different kinds of animals. Fill in the chart below to find how many there are in each group.

Bears	Monkeys	Deer	Snakes
6 brown bears	4 chimpanzees	7 antelopes	1 boa
2 polar bears	2 baboons	4 gazelles	2 pythons
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- 2.** Add your sums from Exercise 1 to find the total number of animals in Ripple Creek Zoo.
-

- 3.** Only 50 people at a time can skate at Brown's Ice Skating Rink. There were already 21 people in the rink when 37 Auburn Elementary School students arrived. How many people are now at the rink?
-

- 4.** Brianna's mother told her to do 50 minutes of homework. If she does 15 minutes of math homework and 37 minutes of English, will this be enough homework time? How long has Brianna worked?
-

- 5.** Pablo's family went on a trip to the beach. In the morning, they drove 26 miles, and then after lunch they drove another 45 miles. In all, how far did they travel?
-

Name _____ Date _____

2–5**Homework Practice****3NS2.1, 3NS3.3***Add Money***Add. Use estimation to check for reasonableness.**

1. $41\text{¢} + 18\text{¢} =$ _____

2. $\$12 + \$79 =$ _____

3. $\$0.08 + \$0.76 =$ _____

4. $\$0.39 + \$0.50 =$ _____

5. $\$68 + \$8 =$ _____

6. $\$21 + \$33 =$ _____

7. $\$13 + \$78 =$ _____

8. $\$34 + \$17 =$ _____

9. $\$46 + \$89 =$ _____

10. $\$0.15 + \$0.75 =$ _____

11. Anna has \$15. If she buys a book that costs \$9 and a poster costing \$4, how much money will she have left?
-

12. If Yolanda buys a birthday card for 36¢ and a thank-you card for 46¢, what will she pay in all?
-

Spiral Review**Add. Check for reasonableness. (Lesson 2–4)**

13. $55 + 32$ _____

14. $19 + 29$ _____

15. $65 + 25$ _____

16. $16 + 25$ _____

17.
$$\begin{array}{r} 41 \\ + 9 \\ \hline \end{array}$$

18.
$$\begin{array}{r} 25 \\ + 7 \\ \hline \end{array}$$

19.
$$\begin{array}{r} 34 \\ + 8 \\ \hline \end{array}$$

20.
$$\begin{array}{r} 47 \\ + 15 \\ \hline \end{array}$$

21.
$$\begin{array}{r} 76 \\ + 15 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 29 \\ + 46 \\ \hline \end{array}$$

Problem-Solving Practice

3NS2.1, 3NS3.3

Add Money

1. Brian found \$0.25 at the beach on Monday and \$0.16 on Tuesday. In all, how much money did he find?
-

2. Find the Error

Javan added $\$0.29 + \0.05 and got $\$0.79$ for his total. Find the correct answer, and explain Javan's error.

3. For math class, Pia has to buy a ruler that costs 42¢ and a compass that costs 49¢. How much money will she spend?
-

4. Mei Ling bought dinner for her family. The spaghetti cost \$45 and the dessert cost \$25. How much did her family's dinner cost?
-

5. Ryan is inviting friends to his party. The food will cost \$63 and the decorations will cost \$17. How much will he spend altogether?
-

6. Melons cost \$2 each. If Monica buys 3 melons and \$28 worth of seafood, how much will she pay?
-

Homework Practice**3MR1.1***Problem-Solving Investigation***Use the four-step plan to solve each problem.**

- 1.** Ernesto's friend lives 7 blocks away from his house. On Saturday morning, Ernesto rode his bike to his friend's house and rode back home later on. In the afternoon, he rode to his friend's house again, and later on he rode back home. In all, how many blocks did he ride?
-

- 2.** Mrs. Shelley's class is reading *The Lion, the Witch, and the Wardrobe*. If they read 16 pages every week, how many pages can they read in 2 weeks?
-

- 3.** At a dance recital, ballet dancers performed for 19 minutes and modern dancers performed for 24 minutes. About how long was the recital?
-

- 4.** Al visits his grandparents every summer. Al's mother drives him 16 miles to the bus station. Al travels 75 miles on the bus to his grandparent's house. How many miles does he travel in all?
-

Spiral Review**Add. Use estimation to check for reasonableness. (Lesson 2–5)**

5. $46\text{¢} + 35\text{¢}$ _____

7. $12\text{¢} + 77\text{¢}$ _____

6. $\$55 + \13 _____

8. $\$28 + \48 _____



Name _____ Date _____

2-7**Homework Practice****3NS2.1, 3NS3.3***Three-Digit Addition***Find each sum. Use estimation to check for reasonableness.**

1. $\$3.51 + \4.65 _____

2. $29 + 66$ _____

3. $\$4.45 + \3.18 _____

4. $653 + 284$ _____

5. $178 + 99$ _____

6. $\$6.52 + \1.39 _____

Spiral Review**Use the four-step plan to solve each problem. (Lesson 2-6)**

7. Kevin's family bought 2 pizzas that cost \$12 each. How much did these items cost altogether?
-

8. A canary costs \$89, and a birdcage costs \$82. About how much do the bird and cage cost altogether?
-

9. A truck is delivering fresh vegetables to the Springfield Grocery Store. Starting from Bealstown, it goes 27 miles north to Bentley, and then goes 39 miles west to Springfield. How many miles is the entire trip to Springfield?
-

Problem-Solving Practice

3NS2.1, 3NS3.3

Three-Digit Addition

Find each sum. Use estimation to check for reasonableness.

1. Last week, Stephanie cleaned her room for a total of 125 minutes and she watered the garden for 18 minutes. How long did she work?
-

2. The Allens are redecorating their living room. A new rug will cost \$249 and a new sofa will cost \$540. How much will the rug and the sofa cost altogether?
-

3. Megan's older sister goes to a college that is 197 miles from home. She comes home once a month. How many miles does she travel coming home and going back to college?
-

4. Mrs. Lewis bought 2 rosebushes for her garden. One cost \$6.25 and one cost \$3.35. What was the total cost?
-

5. A long-distance phone call to Germany costs \$4.95 for 15 minutes. This week, Jens called his family in Germany twice and talked 15 minutes each time. How much did both phone calls cost?
-

6. Anwar wants to begin collecting marbles. He decides he would like 315 blue marbles and 15 green marbles. How many marbles does Anwar want in all?
-

Name _____ Date _____

2–8**Homework Practice****3NS2.1, 3NS3.3***Add Greater Numbers***Find each sum. Use estimation to check for reasonableness.**

1. $4,091 + 238 =$ _____

2. $\$50.45 + \$49.99 =$ _____

3. $356 + 1,209 =$ _____

4. $\$44.63 + \$72.10 =$ _____

5. $\$39.12 + \$23.67 =$ _____

6. $2,088 + 346 =$ _____

7. $\$74.16 + \$24.18 =$ _____

8. $\$45.02 + \$54.20 =$ _____

9. $3,866 + 727 =$ _____

10. Courtney is having a tea party. She bought a teapot for \$25.35 and cookies for \$6.15. How much money did she spend?
-

11. Elizabeth went to the craft store to purchase supplies to make a scrapbook. She bought some stamps for \$19.99 and beads for \$10.45. How much money did she spend?
-

Spiral Review**Find each sum. Use estimation to check for reasonableness. (Lesson 2–7)**

12. $708 + 221 =$ _____

13. $578 + 333 =$ _____

14. $981 + 602 =$ _____

15. $132 + 78 =$ _____

Problem-Solving Practice**3NS2.1, 3NS3.3***Add Greater Numbers***Solve.**

Travel Agency Deluxe Package Prices	
Philadelphia	\$3,501
Miami	\$2,990
Baltimore	\$2,503
Kansas City	\$1,994

1. Cheyenne is going to Philadelphia for her summer vacation. Her friend James is going to Miami. How much will both vacation packages cost?
-

2. Lee's mother had to go on two trips last year. She went to Baltimore and Kansas City. What was the total cost of her vacation packages?
-

3. Carlos paid \$39.97 for a bat and \$80.12 for his uniform. How much did he pay?
-

4. Paulita bought jewelry when she went to New Mexico. She bought a beaded necklace that cost \$23.56 and a bracelet that cost \$14.99. What was the total price she paid?
-

5. Last year, Mr. Landry worked 2,080 hours. This year, he worked 2,404 hours. How many hours did he work in all?
-

Name _____ Date _____

3-1**Homework Practice****3NS2.1***Two-Digit Subtraction***Subtract. Check your answer.**

$$\begin{array}{r} 25 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 37 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 49 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 52 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 67 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 83 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 39 \\ - 17 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ - 21 \\ \hline \end{array}$$

$$\begin{array}{r} 64 \\ - 32 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ - 38 \\ \hline \end{array}$$

$$\begin{array}{r} 75 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} 91 \\ - 33 \\ \hline \end{array}$$

13. $15 - 4 =$ _____

14. $28 - 6 =$ _____

15. $38 - 2 =$ _____

16. $35 - 8 =$ _____

17. $62 - 7 =$ _____

18. $84 - 6 =$ _____

19. $48 - 22 =$ _____

20. $56 - 34 =$ _____

21. $67 - 58 =$ _____

22. $71 - 19 =$ _____

23. $83 - 45 =$ _____

24. $95 - 56 =$ _____

25. John's mother made 24 muffins. John and his friends ate 6 muffins after school. How many muffins were left? _____**26.** Rebecca has 17 pairs of socks. 9 pairs are white. How many pairs are not white? _____**Spiral Review****Find each sum. (Lesson 2-8)**

27. $445 + 338 =$ _____

28. $\$5.99 + \$2.76 =$ _____

29. $1,762 + 2,354 =$ _____

30. $\$34.90 + \$14.90 =$ _____

31. $4,444 + 6,888 =$ _____

32. $\$65.22 + \$96.11 =$ _____

33. $1,232 + 4,330 =$ _____

34. $\$3.03 + \$3.99 =$ _____

Problem-Solving Practice

3NS2.1

Two-Digit Subtraction

1. Kelly has 27 cousins. Twelve of the cousins are boys. How many cousins are girls?

2. Jeremy has collected 61 baseball caps from college and professional teams. Fifteen of the caps are from college teams. How many caps are from professional teams?

3. Maria's swimming class will meet 50 times this year. She has already been to swimming class 34 times. How many more swimming classes does Maria have left this year?

4. It takes Dylan 47 minutes to get to his friend's house. He left his home 18 minutes ago. How many more minutes will it take to get to his friend's house?

5. Vanessa found 87 coins on the sidewalk. She gave 15 to her sister and 16 to her friend. How many coins does Vanessa have left?

6. Brandon had 75 math problems for homework. He did 12 at school. He did 10 when he got home. How many problems does Brandon still need to finish?

Name _____ Date _____

3-2**Homework Practice****3NS1.4, 3NS2.1***Estimate Differences***Estimate. Round to the nearest ten.**

1.
$$\begin{array}{r} 57 \\ - 22 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 77 \\ - 63 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 52 \\ - 27 \\ \hline \end{array}$$

Estimate. Round to the nearest hundred.

4.
$$\begin{array}{r} 568 \\ - 322 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 487 \\ - 219 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 915 \\ - 192 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 223 \\ - 145 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 835 \\ - 462 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 942 \\ - 358 \\ \hline \end{array}$$

- 10.** Colin wants to buy a CD for \$17 and a book for \$8. About how much more does the CD cost? _____

- 11.** Shannon's scout troop sold 357 boxes of cookies last week. They started with 600 boxes to sell. About how many boxes do they have left to sell? _____

Spiral Review**Subtract (Lesson 3-1)**

12.
$$\begin{array}{r} 32 \\ - 1 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 34 \\ - 12 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 43 \\ - 8 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 48 \\ - 35 \\ \hline \end{array}$$

16.
$$\begin{array}{r} 58 \\ - 9 \\ \hline \end{array}$$

17.
$$\begin{array}{r} 50 \\ - 27 \\ \hline \end{array}$$

18.
$$\begin{array}{r} 62 \\ - 8 \\ \hline \end{array}$$

19.
$$\begin{array}{r} 64 \\ - 39 \\ \hline \end{array}$$

- 20.** David scored 25 points in his basketball game. Seven of his points were from free throws. The rest were goals from the field. How many points were from the field? _____

Problem-Solving Practice

3NS1.4, 3NS2.1

Estimate Differences

Use estimation to solve.

1. A basketball coach won 132 games. He won 79 more games than he lost. About how many games did he lose?

about _____ games

3. A red building in Houston, Texas, is 703 feet tall. It is 499 feet taller than a blue building. About how tall is the blue building?

about _____ feet tall

5. Mr. Frasier has \$875 in his savings account and \$689 in his checking account. About how much more money is in his savings account than in his checking account?

about \$ _____ more

2. The bleachers in the gym can seat about 289 people. If there are 191 people in the gym, about how many more people can fit in the bleachers?

about _____ more

4. Arco Company has \$850 to spend on office equipment. The company bought a copy machine for \$485. About how much money is left in the budget?

about \$ _____

6. The Bank One Center in Dallas is 787 feet tall. It is 304 feet taller than the Harwood Center. Is the Harwood Center greater than or less than 500 feet tall?

_____ than 500 feet tall

Explain your answer.

Name _____ Date _____

3-3**Homework Practice****3NS2.1, 3NS3.3***Subtract Money***Subtract.**

1. 38¢
 $\underline{- 3\text{¢}}$

2. $\$0.84$
 $\underline{- \$0.53}$

3. $\$95$
 $\underline{- \$42}$

4. 17¢
 $\underline{- 9\text{¢}}$

5. $\$0.60$
 $\underline{- \$0.45}$

6. $\$0.89$
 $\underline{- \$0.54}$

7. $\$0.67$
 $\underline{- \$0.50}$

8. $\$0.74$
 $\underline{- \$0.49}$

9. $83\text{¢} - 21\text{¢}$ _____

10. $72\text{¢} - 35\text{¢}$ _____

11. $\$0.45 - \0.25 _____

12. $\$68 - \20 _____

13. $\$0.32 - \0.16 _____

14. $\$50 - \28 _____

15. $\$0.43 - \0.12 _____

16. $\$0.96 - \0.75 _____

17. $\$82 - \67 _____

18. Joe has saved \$25. He buys a CD for \$16. How much money will he have left? _____

19. Courtney has \$27 to buy dinner. Her dinner is \$18. How much money does Courtney have left? _____

Spiral Review**Estimate. Round to the nearest ten. (Lesson 3-2)**

20. $28 - 17$ _____

21. $94 - 81$ _____

22. $77 - 21$ _____

Estimate. Round to the nearest hundred.

23. $503 - 264$ _____

24. $346 - 178$ _____

25. $848 - 162$ _____

26. $465 - 242$ _____

27. $525 - 377$ _____

28. $619 - 337$ _____

Problem-Solving Practice

3NS2.1, 3NS3.3

Subtract Money

Solve.

1. Mr. Smith sold a \$0.58 fruit bar to Molly. She gave him \$0.75. How much change should Molly get?

2. Suppose you buy something and get \$57 in change. What bills could the change be?

3. Amelia bought a \$16 shirt and paid with two \$10-bills. How much change does she get back? List the bills of the change.

4. Marisa paid for a board game with a \$50-bill. She received \$18 in change. How much did the board game cost?

5. Leandro pays for his textbook with two \$10-bills. He gets back three \$1-bills in change.
How much did his textbook cost?

6. Josh sold a CD to Vera for \$5. Vera gave Josh a \$50-bill for the CD. Josh has no \$5-bills, but gives Vera the correct amount of change. Tell what bills he may have given her.

7. Meredith earned \$75 helping Mrs. Yen weed her garden. Meredith earned \$84 helping Mr. Hunt in his garden. How much more did Meredith earn helping Mr. Hunt?

8. Chuck has \$75. If he spends \$38 on comic books and snacks, how much of his money does he have left?

Name _____ Date _____

3–4**Homework Practice****3MR2.1, 3NS2.1***Problem-Solving Skill***Solve. Check for reasonableness.**

- 1.** This weekend Emily drew 4 pictures for her friend. Then she drew 3 pictures for her grandmother and 2 pictures for her brother. She said she drew about 10 pictures. Is this reasonable? _____

Explain. _____

- 2.** Elizabeth has 13 yarn bracelets. She wants to have 20. She estimates she will need to make about 10 bracelets. Is this reasonable? _____

Explain. _____

- 3.** Megan and Daniel have a bag of 150 raisins. Megan eats 11 raisins, and Daniel eats 12. They think there are 130 raisins left in the bag. Is 130 a reasonable estimate? _____

Explain. _____
_____**Spiral Review****Subtract. (Lesson 3–3)**

4. $\begin{array}{r} \$0.71 \\ - \$0.54 \\ \hline \end{array}$

5. $\begin{array}{r} \$0.57 \\ - \$0.24 \\ \hline \end{array}$

6. $\begin{array}{r} \$0.54 \\ - \$0.38 \\ \hline \end{array}$

7. $\begin{array}{r} \$0.81 \\ - \$0.32 \\ \hline \end{array}$

8. $64 - 33 =$ _____

9. $77 - 51 =$ _____

10. $\$0.52 - \$0.37 =$ _____

11. $\$81 - \$35 =$ _____

12. $\$71 - \$36 =$ _____

13. $\$71 - \$65 =$ _____

Name _____ Date _____

3–5**Homework Practice****3NS2.1, 3MR3.1***Three-Digit Subtraction with Regrouping***Subtract. Check your answer.**

$$\begin{array}{r} 381 \\ - 165 \\ \hline \end{array}$$

$$\begin{array}{r} 441 \\ - 57 \\ \hline \end{array}$$

$$\begin{array}{r} \$8.50 \\ - \$2.43 \\ \hline \end{array}$$

$$\begin{array}{r} \$3.19 \\ - \$1.75 \\ \hline \end{array}$$

5. $224 - 115$ _____

6. $356 - 178$ _____

7. $802 - 334$ _____

8. $\$4.67 - \1.82 _____

9. $\$5.21 - \3.75 _____

10. $\$6.33 - \2.45 _____

ALGEBRA Find each missing digit.

11.
$$\begin{array}{r} 51\Box \\ - 265 \\ \hline \Box 49 \end{array}$$

12.
$$\begin{array}{r} 385 \\ - \Box 23 \\ \hline 6\Box \end{array}$$

13.
$$\begin{array}{r} 4\Box 9 \\ - 112 \\ \hline \Box 97 \end{array}$$

14. The bike trail by James's house is 215 yards long.

The hiking trail by Hannah's house is 118 yards long.

How much longer is the bike trail by James's house? _____

Spiral Review (Lesson 3–4)
15. Pedro made 125 glasses of lemonade to sell at his stand. At the end of the day, there were 19 glasses left. He estimates that he sold about 100 glasses that day. Is this reasonable? _____

Explain. _____

16. Brianna picked up 99 cans cleaning up the park last week with her scout troop. This week they picked up 312. She estimates that the troop picked up about 200 more cans this week. Is this reasonable? _____

Explain. _____

Problem-Solving Practice**3NS2.1, 3MR3.1***Three-Digit Subtraction with Regrouping***Solve.**

- 1.** There were 175 peaches at the fruit stand.

Customers bought 82 of the peaches. How many peaches are left?

_____ peaches

Did you need to regroup ones?

_____ tens? _____

- 3.** Tanisha bought a pack of 225 sheets of paper for her homework.

After a week, she has 198 sheets of paper left. How many sheets of paper did Tanisha use?

_____ sheets

- 5.** The health food store had 254 granola bars. They sold 85 bars yesterday and another 78 bars today. How many granola bars does the store have left?

_____ granola bars

- 2.** Another crate has 272 red and green apples.

There are 123 red apples in the crate. How many apples are green?

_____ green apples

Did you need to regroup ones?

_____ tens? _____

- 4.** The school library would like to raise \$915 to buy more books.

So far, the library has raised \$475. How much more money does the library need to reach its goal?

_____ more

- 6.** Evan has 85 baseball cards and 129 basketball cards. Alan has 312 football cards. Who has more cards in all?

How many more cards?

_____ more cards

Name _____ Date _____

3–6**Homework Practice****3MR1.1***Problem-Solving Investigation***Use any strategy shown below to solve. Tell what strategy you used.**

- Estimate or an exact answer
- Reasonable answer
- Four-Step Plan

- 1.** Mark is buying apples. They are \$1.49 per pound. He wants to buy 2 pounds. How much will he spend on apples?

- 2.** Gabriel has 15 baseballs. He used to have 53 baseballs but lost some when he moved. How many baseballs did he lose?

- 3.** Abbie has 287 beans on her plate. Her mother says she must eat until there are only 35 beans left. How many beans must Abbie eat?

Spiral Review**ALGEBRA Find each missing digit. (Lesson 3–5)**

4.
$$\begin{array}{r} 42\Box \\ -156 \\ \hline \Box65 \end{array}$$

5.
$$\begin{array}{r} 224 \\ -\Box66 \\ \hline 5\Box \end{array}$$

6.
$$\begin{array}{r} 5\Box6 \\ -321 \\ \hline \Box25 \end{array}$$

Name _____ Date _____

3–7**Homework Practice****3NS2.1***Subtract Greater Numbers***Subtract.**

1. $1,816$
 $\underline{- 429}$

2. $3,659$
 $\underline{- 2,485}$

3. $4,718$
 $\underline{- 1,962}$

4. $7,613$
 $\underline{- 5,549}$

5. $1,237 - 863$ _____

6. $2,689 - 1,156$ _____

7. $2,879 - 1,675$ _____

8. $3,466 - 2,132$ _____

9. $4,768 - 3,021$ _____

10. $7,547 - 5,223$ _____

- 11.** A trail is 5,386 feet long. Chloe has already walked 1,753 feet. How much farther does she need to walk to complete the trail?
-

- 12.** Seth has 2,374 Legos to build with. He used 1,142 to build a car. How many Legos does he have left?
-

Spiral Review

Use any strategy shown below to solve. Tell what strategy you used. (Lesson 3–6)

- 13.** 15 friends were playing at the park. 2 left to go to soccer practice. 4 left to go home. Three more left to go to the library. How many friends are left at the park?
-

- 14.** Seth's bus brings 37 kids to school. The next bus brings 42. If 118 kids come to school by bus, how many are on the third bus?
-

Problem-Solving Practice

3NS2.1

Subtract Greater Numbers

Solve.

1. A library has 2,222 books about sports and 1,814 books about animals. How many more sports books are there than animal books?

_____ more books

3. In the 2007 NFL season, a receiver rushed 1,139 yards, and a running back rushed for 1,435 yards. How many more yards were rushed by the running back than the receiver?

_____ more yards

5. Carl has 1,253 marbles in a jar. He took 346 marbles out of the jar. How many marbles are left in the jar?

_____ marbles

2. There were 3,631 books at the book sale. There are now 1,435 books left. How many books were sold?

_____ books

4. Pittsburgh University won the college football championship in 1937. They won again in 1976. How many years were there between championships?

_____ years

6. A stadium has 8,535 seats. At the game, there were still 1,956 seats left. How many seats were sold?

_____ seats

Name _____ Date _____

3–8**Homework Practice****3NS2.1***Subtract Across Zeros***Subtract. Check your answer.**

1. 100
 $\underline{-27}$

2. 301
 $\underline{-172}$

3. 500
 $\underline{-165}$

4. 702
 $\underline{-234}$

5. $\$400 - \138 _____

6. $\$600 - \422 _____

7. $\$702 - \375 _____

8. $301 - 28$ _____

9. $200 - 143$ _____

10. $803 - 336$ _____

- 11.** 100 of the third-graders wear backpacks to school.
 67 of the second-graders wear backpacks to school.
 How many more third-graders wear backpacks? _____
- 12.** Kayla's mom has \$500. She buys a computer for \$328.
 How much money does she have now? _____

Spiral Review**Subtract. (Lesson 3–7)**

13. $1,426$
 $\underline{-389}$

14. $2,255$
 $\underline{-1,343}$

15. $\$3,678$
 $\underline{-\$1,836}$

16. $\$5,491$
 $\underline{-\$1,762}$

- 17.** Morgan has a high score of 9,875 on her favorite game. Her brother can score 6,548. What is the difference between their scores?

Problem-Solving Practice**3MR1.1***Subtract Across Zeros***Solve.**

- 1.** The best bowler in the Junior Bowler's League scored 150 points. Jason scored 125 points. How many points higher did the best bowler score than Jason?

_____ points higher

- 2.** There are 70 bowlers in the league this year. There were only 54 bowlers last year. How many more bowlers joined the league this year?

_____ more bowlers

Votes for School President	
Candidate	Number of Votes
Ariana	200
Miguel	147
Tyrone	171

Use the chart to solve.

- 3.** How many more votes did the winner get than Miguel?

_____ more votes

- 4.** How many more votes did Tyrone need to win the election?

_____ more votes

Solve.

- 5.** Harrison and Jordan played 3 computer games. Jordan scored 124 points in the first game and 268 points in the second game. Harrison scored a total of 600 points for all 3 games. How many points does Jordan need in the third game to beat Harrison's score?

_____ points

- 6.** Keisha is saving money for a new computer that costs \$480. She has saved \$175. She found a coupon for \$50 off the price of the computer. How much more money does Keisha need to save to buy the computer?

\$ _____ more

Homework Practice**3AF1.1, 3AF1.3***Algebra: Expressions and Number Sentences***Write an expression to describe each problem. Then solve.**

- 1.** Luis needs 4 blue marbles, 8 striped marbles, 12 green marbles, and 18 red marbles for his game. How many marbles does he need?
-

- 2.** Shelby made 15 bracelets. Her mother made 43. How many more bracelets did Shelby's mother make?
-

Favorite Sports	
Lacrosse	28
Soccer	85
Football	35
Volleyball	21
Basketball	87

Use the data to write a number sentence for each of the following.

- 3.** sum of votes for soccer and football _____
- 4.** sum of votes for basketball and volleyball _____
- 5.** difference of votes for soccer and lacrosse _____

Spiral Review**Subtract. Check for reasonableness. (Lesson 3-8)**

6. 200
 $\underline{-43}$

7. 302
 $\underline{-166}$

8. 400
 $\underline{-248}$

9. 601
 $\underline{-526}$

Problem-Solving Practice**3AF1.1, 3AF1.3***Algebra: Expressions and Number Sentences***Write an expression and a number sentence for each problem. Then solve.**

1. Robert is 47 inches tall. His older brother Randy is 65 inches tall. How much taller is Randy than Robert?

_____ inches taller

2. Robert weighs 52 pounds. Randy weighs 68 pounds more than Robert. How much does Randy weigh?

_____ pounds

3. Heather and Aaron each bought a game. Heather paid \$15 for her game. Aaron paid \$7 more than Heather. How much did Aaron's game cost?

\$ _____

4. There are 500 sheets of art paper in a pack. The pack has 125 white sheets, 135 black sheets, and 115 yellow sheets. The rest of the sheets are red. How many red sheets of art paper are in the pack?

_____ red sheets

5. Write your own problem that has an answer of \$37.

Name _____ Date _____

4-1**Homework Practice****3NS2.2, 3MR2.3***Multiplication as Repeated Addition*

Write an addition and a multiplication sentence for each model.



Multiply. Use repeated addition.

3. $8 \times 3 =$ _____

4. $4 \times 6 =$ _____

5. $8 \times 4 =$ _____

6. $3 \times 9 =$ _____

7. $7 \times 6 =$ _____

8. $9 \times 10 =$ _____

Spiral Review

**Write an expression to describe each problem.
Then solve. (Lesson 3-9)**

9. Jennifer needs 4 blue strings and 18 pink strings to make friendship bracelets. How many strings does she need?

-
10. Allison made 21 mini pizzas for the party. Angela made 33 mini pizzas. How many more pizzas did Angela make?
-

Problem-Solving Practice

3NS2.2, 3MR2.3*Multiplication as Repeated Addition***Write an addition and a multiplication sentence.****Then solve.**

1. There are 3 people sitting at each of 4 tables. How many people are there in all?

2. Alisa needs to put 2 forks at each of 8 table settings. How many forks in all does she need?

3. Renee jogs 5 miles a day, 4 days each week. How many miles does she jog each week?

_____ miles

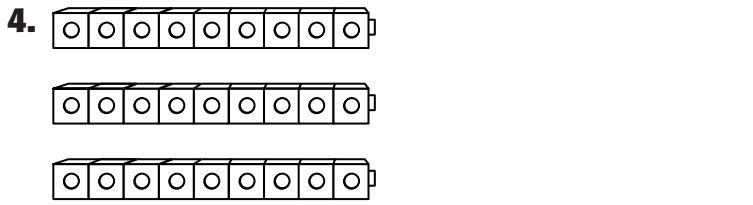
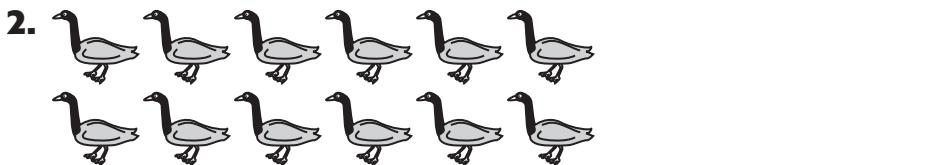
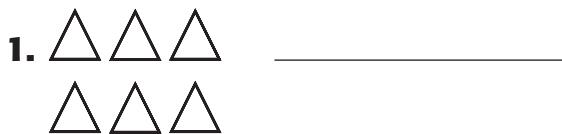
4. Henry lives 3 miles away from the mall. Henry can run a mile in 6 minutes. If he can keep up this speed, how long will it take him to run to the mall?

_____ minutes

5. It takes Sam 5 minutes to wash a window. Sam has 9 windows in his house to wash. How many minutes will it take him to finish?

6. Heather spent \$4 for a salad and \$2 for a drink. She bought the same lunch for 3 of her friends. She paid with three \$10-bills. How much change did she get back?

Name _____ Date _____

4-2**Homework Practice****3AF1.5***Arrays and Multiplication***Write a multiplication sentence for each array. Then multiply.****Use the Commutative Property of Multiplication to find the missing number.**

5. $3 \times 6 = 18$ $\times 3 = 18$

6. $7 \times 4 = 28$ $4 \times$ $= 28$

7. $8 \times 6 = 48$ $6 \times 8 =$

8. $5 \times 2 = 10$ $\times 5 = 10$

Spiral Review**Write an addition and a multiplication sentence. Then solve. (Lesson 4-1)**

Problem-Solving Practice**3AF1.5***Arrays and Multiplication***Solve.**

- 1.** Mr. Turner has 4 students in each of 5 math groups. Draw an array of circles to show how many students there are in all.

_____ students

- 3.** The top shelf in the bakery has 5 muffins on each of 6 plates. The bottom shelf has 6 muffins on each plate. Both shelves have the same number of muffins. How many plates are on the bottom shelf?

_____ plates

How many muffins are on each shelf?

_____ muffins

- 5.** Leroy and Vern each have the same number of video games. Leroy puts an equal number of games in each of 7 boxes. Vern has only 3 boxes. He puts 7 games in each box. How many video games do Leroy and Vern have altogether?

_____ video games

- 2.** Four students have 3 pencils each. Draw an array of circles to show how many pencils there are in all.

_____ pencils

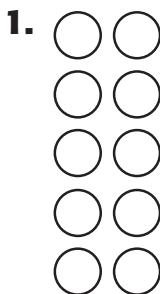
- 4.** Each baker uses the same number of cherries. Tanya puts 3 cherries on each of 6 pies. Russell puts cherries on 3 pies. If Russell puts the same number of cherries on each pie, how many cherries does he need?

_____ cherries

How many cherries did each baker use?

_____ cherries

- 6.** Ray makes an array that has 4 rows of 4 counters. He wants to make two more arrays using the same number of counters. He wants more than one counter in each row. What two arrays can he make?

4–3**Homework Practice****3NS2.2***Multiply by 2***Multiply.****Multiply. Draw a picture or use an array.**

3. $\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$

4. $\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$

5. $\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$

6. $\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$

7. $\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$

8. $2 \times 8 =$ _____

9. $2 \times 2 =$ _____

10. $6 \times 2 =$ _____

Write a multiplication sentence for each situation. Then solve.

11. There are 4 boys. How many total arms do they have?
-

12. John is jumping on a pogo stick. He is counting by twos. If he counted to 24, how many jumps has he made?
-

Spiral Review**Use the Commutative Property of Multiplication to find each missing number. (Lesson 4–2)**

13. $4 \times 7 = 28$

$$7 \times \boxed{\quad} = 28$$

14. $6 \times 2 = 12$

$$\boxed{\quad} \times 6 = 12$$

15. $5 \times 3 = 15$

$$\boxed{\quad} \times 5 = 15$$

Problem-Solving Practice

3NS2.2

Multiply by 2

Write a multiplication sentence for each situation. Then solve.

1. There are 2 daisies in each vase.

There are 8 vases. How many daisies are there in all?

_____ daisies

2. Maria plants 2 tomato seeds in each flower pot. If there are 6 flower pots, how many tomato seeds did Maria plant?

_____ tomato seeds

3. There are 7 people in the Smith family. They all keep their gloves in one box in the closet. Each person has 2 pairs of gloves. How many pairs of gloves are in the box?

_____ pairs of gloves

4. Dad paid the cashier with two \$5-bills. How much money did he pay?

\$ _____

5. Letti is coloring 9 flowers on two pages. How many flowers will Letti color?

_____ flowers

6. There are 4 children in a line. How many legs are there in all?

_____ legs

Name _____ Date _____

4-4**Homework Practice****3NS2.2***Multiply by 4***Multiply.**

$$\begin{array}{r} 1. \quad 4 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 6 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 3 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 4 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 8 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 4 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 4 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 7 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 4 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 9 \\ \times 4 \\ \hline \end{array}$$

11. 2×4 _____

12. 4×4 _____

13. 6×4 _____

14. 4×3 _____

15. 4×10 _____

16. 4×1 _____

Write a multiplication sentence for each situation. Then solve.17. There are 5 cars. How many total wheels do they have?
_____18. There are 4 snakes and each snake has two eyes. What is the total number of eyes?
_____19. A toy comes with 6 parts in each box. If you have 4 boxes of toys, how many parts are there altogether?
_____**Spiral Review****Multiply. Draw a picture or use an array. (Lesson 4-3)**

20. $9 \times 2 =$ _____

21. $2 \times 4 =$ _____

22. $2 \times 10 =$ _____

Problem-Solving Practice

3NS2.2

Multiply by 4

Write a multiplication sentence for each situation. Then solve.

1. The straight part of Eli's train track has 4 tracks. Each track has 7 train cars. How many train cars are on the straight part of the train track?

_____ train cars

3. There are 4 posters on each bulletin board. There are 3 bulletin boards. How many posters are there in all?

_____ posters

5. Paula can make 4 beaded bracelets in an hour. In one week Paula made bracelets for 6 hours. How many bracelets did she make?

_____ bracelets

2. Melissa owns 4 sets of trains. Each set has 6 train cars. How many train cars does Melissa have in all?

_____ cars

4. There are 4 groups of students in charge of decorating the hallway bulletin boards. Each group decorates 8 different boards around the school. How many bulletin boards are there in all?

_____ bulletin boards

6. Every bracelet has 4 blue beads. If Jackie makes 5 bracelets, how many blue beads will she use?

_____ blue beads

Name _____ Date _____

4-5**Homework Practice****3NS2.2 3MR1.1***Problem-Solving strategy*

Solve. If there is missing information, tell what facts you need to solve the problem. If there is extra information, write it on the line provided.

1. Ronnie is making banana bread for a fundraiser. He needs to make 9 loaves of bread. Each loaf needs 5 bananas. Each loaf will sell for \$2.00. How many bananas will he need to purchase?

2. Ace wants to buy packs of pencils. Each pack costs \$2. How much change will he get back from 2 \$5-bills?

3. Erin bought a 4-pack of books for \$6.95. Jackie bought the same 4-pack of books for \$9.95. Sue spent \$12.95 for the books she brought. How much more money did Sue spend on her books than what Erin and Jackie each spent?

4. Naya has twelve jacks. She gives away 6 to Jane and 3 to Heather. Hannah does not have any jacks. How many jacks does Naya have left?

5. Juan bought 2 tires for his bike. His bike cost \$65. How much did he spend on the 2 tires?

Spiral Review**Multiply. (Lesson 4-4)**

6. $2 \times 4 =$ _____

7. $6 \times 4 =$ _____

8. $8 \times 4 =$ _____

9. $4 \times 5 =$ _____

Name _____ Date _____

4–6**Homework Practice****3NS2.2***Multiply by 5***Multiply. Draw a picture or use an array.**

$$\begin{array}{r} 1. \quad 5 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 5 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 5 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 5 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 8 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 7 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 5 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 5 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 5 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 9 \\ \times 5 \\ \hline \end{array}$$

11. 6×5 _____

12. 3×5 _____

13. 5×5 _____

14. Katie paid for her new bike with six \$5-bills. Her change was \$4. How much did the bike cost? _____**15.** Sean has 4 nickels. How many walnuts can he buy if they are 5 cents each? _____**16.** Each pair of tennis shoes costs \$25.00. If Andrea has four \$5-bills, does she have enough to buy 1 pair? _____**17.** Emma has 39 books. Her bookshelf has 5 shelves. Each shelf can hold 7 books. Is there enough room for Emma's books? Explain.
_____**Spiral Review****Solve. If there is missing information, tell what facts you need to solve the problem. If there is extra information, write it on the line provided. (Lesson 4–5)****18.** A group of children is going to the movies. The price of admission is \$4.95 each. If there are 6 children and 2 adults, and 4 seats in each car, how many cars will they take?
_____**19.** If Grant wants to adopt a cat and he brings four \$10-bills, will he have enough money?

Problem-Solving Practice

3NS2.2

Multiply by 5

Write a multiplication sentence for each situation. Then solve.

1. There are 2 flowers in each vase.
There are 5 vases. How many flowers are there in all?

_____ flowers

2. Maria plants 5 seeds in each pot. If there are 6 pots, how many seeds did Maria plant?

_____ seeds

3. There are 4 people in the Jones family. They all keep their shoes in one closet. Each person has 5 pairs of shoes. How many pairs of shoes are in the closet?

_____ pairs of shoes

5. Trish is coloring 7 flowers on a page. Each flower has 5 petals. How many petals must she color to finish?

_____ petals

4. Mom bought five soccer balls. She paid with eight \$5-bills. She did not get any change back. How much did the balls cost?

6. Mrs. Ortiz bought 8 coloring books as party favors. The books are \$5 each. She paid with two \$20-bills. Will Mrs. Ortiz get any change back?

Name _____ Date _____

4-7**Homework Practice****3NS2.2***Multiply by 10***Multiply.**

$$\begin{array}{r} 1. \quad 10 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 10 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 10 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 10 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 10 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 10 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 7 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 10 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 4 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 10 \\ \times 6 \\ \hline \end{array}$$

11. 8×10 _____

12. 10×7 _____

13. 9×10 _____

14. 10×10 _____

15. 5×10 _____

16. 6×10 _____

17. There are 10 cats and 5 dogs. How many total legs are there?
_____**18.** A farmer has 10 cows. How many eyes and ears do the cows have?
_____**Spiral Review****Multiply. (Lesson 4-6)**

19. $5 \times 4 =$ _____

20. $7 \times 5 =$ _____

21. $5 \times 5 =$ _____

22. $5 \times 6 =$ _____

23. $8 \times 5 =$ _____

24. $5 \times 3 =$ _____

25. $9 \times 5 =$ _____

26. $6 \times 5 =$ _____

27. $5 \times 8 =$ _____

28. $5 \times 7 =$ _____

29. $2 \times 5 =$ _____

30. $5 \times 9 =$ _____

Problem-Solving Practice**3NS2.2****Multiply by 10****Write a multiplication sentence for each situation.****Then solve.**

- 1.** In a game, Carlos ran with the football three times. Each time, he ran 10 yards. How many yards did he run?

_____ yards

- 2.** The Appletown Zoo has 10 monkeys. Each monkey gets one banana a day. How many bananas do the monkeys eat each day?

_____ bananas

- 3.** Hal shoes horses on a farm. Today he put horseshoes on all the hooves of 10 horses. How many horseshoes did he put on?

_____ horseshoes

- 4.** Nine women have an appointment at the nail salon. Kiki will polish all of their fingernails. How many fingernails will Kiki polish today?

_____ fingernails

- 5.** Ellen drives a van for the animal shelter. The van holds 10 animals. This week she made 6 trips to the shelter. The van was full each trip. How many animals did she drive?

_____ animals

- 6.** A children's TV show is on 10 days each month. On every show, Burton the Clown plays 3 songs. In the last month, he sang six of all the songs that were played. How many times did he *not* sing last month?

_____ times

Name _____ Date _____

4–8**Homework Practice****3MR1.1, 3NS2.2***Problem-Solving Investigation*

Use any strategy shown below to solve. Tell what strategy you used.

PROBLEM-SOLVING STRATEGIES

- Act it out
- Draw a picture
- Look for a pattern

1. Four children and 1 adult are going to a movie. The price of a ticket is \$10.00 for an adult and \$6.00 for a child. How much will they pay for their tickets?

2. In a pile of laundry there are 14 pairs of socks, 10 shorts, and 12 shirts. How many pieces of clothing are there altogether?

3. Janice saw 8 dogs, 4 cats, and 19 frogs for sale in the pet store. If the store sells 2 dogs and 1 cat each week, how many dogs and cats will there be at the end of the month?

4. Each dog owner paid \$50 for a training class. If there are 3 classes in all, how much did each owner pay?

Spiral Review**Multiply. (Lesson 4–7)**

5. $10 \times 4 =$ _____

6. $8 \times 10 =$ _____

7. $10 \times 7 =$ _____

8. $9 \times 10 =$ _____

9. $10 \times 6 =$ _____

10. $5 \times 10 =$ _____

Name _____ Date _____

4–9**Homework Practice****3NS2.6***Multiply by 0 and 1***Multiply.**

1.
$$\begin{array}{r} 10 \\ \times 0 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 5 \\ \times 1 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 0 \\ \times 3 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 4 \\ \times 1 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 1 \\ \times 8 \\ \hline \end{array}$$

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

7.
$$\begin{array}{r} 2 \\ \times 1 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 8 \\ \times 0 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 1 \\ \times 5 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 7 \\ \times 1 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 0 \\ \times 9 \\ \hline \end{array}$$

Write a multiplication sentence for each situation.

13. Jimmy collects stamps. If he gets 1 stamp a day for 12 days, how many stamps will he add to the collection?
-

14. Louis has 5 boxes. Each box contains 1 marble. How many marbles does he have?
-

15. Joan has 9 goldfish. How many total legs are there?
-

16. Each shirt has 1 pocket. How many total pockets do 11 shirts have?
-

Spiral Review**Solve. (Lesson 4–8)**

17. Jane collected 4 bugs every day for 10 days. How many bugs does she have?
-

18. Alfonso picked 8 oranges and twice as many apples. How many apples did he pick?
-

Problem-Solving Practice

3NS2.6

Multiply by 0 and 1

Solve.

1. Laura went to the library. She saw 1 student at each of the 6 tables. How many students did she see altogether?

-
2. There are 10 cats. Each cat has 1 stripe on its tail. How many stripes are there in all?
-

3. There are 8 whales. How many legs are there?
-

4. There are 2 alligators. How many wings do they have?
-

5. One cat and 4 dogs live in the same house. How many total noses are there?
-

6. A boy has 2 jars. Each jar has 1 penny. How many pennies does he have?
-

7. One muffin has 12 chocolate chips in it. How many total chips are there?
-

Name _____ Date _____

5–1**Homework Practice****3NS2.2***Multiply by 3***Multiply.**

1. $3 \times 3 =$ _____

2. $3 \times 5 =$ _____

3. $5 \times 3 =$ _____

4. $9 \times 3 =$ _____

5. $4 \times 3 =$ _____

6. $10 \times 3 =$ _____

7. $8 \times 3 =$ _____

8. $3 \times 7 =$ _____

9. $6 \times 3 =$ _____

10. $1 \times 3 =$ _____

Solve.

- 11.** The parking lot has 3 rows of cars. There are 6 cars in each row. How many cars are in the parking lot?
-

- 12.** Mary has 3 dimes in her pocket. Each dime equals 10 pennies. If she traded her dimes for pennies, how many pennies would she have?
-

Spiral Review**Multiply. (Lesson 4–9)**

13. $0 \times 3 =$ _____

14. $1 \times 5 =$ _____

15. $1 \times 6 =$ _____

16. $0 \times 9 =$ _____

17. $0 \times 1 =$ _____

18. $2 \times 0 =$ _____

19. $8 \times 1 =$ _____

20. $1 \times 0 =$ _____

21. $1 \times 4 =$ _____

22. $2 \times 1 =$ _____

23. $5 \times 0 =$ _____

24. $0 \times 1 =$ _____

Problem-Solving Practice

3NS2.2

Multiply by 3

Solve.

1. Sean and Dave are playing with toy racecars. Sean has his cars lined up in 3 rows. He has 5 cars in each row. How many cars does he have in all?
-

2. Dave has 4 rows of cars lined up. He has 3 cars in each row. How many cars does Dave have in all?
-

3. The boys are sharing some special cars. They have 2 rows of special cars with 3 in each row. How many special cars do they have in all?
-

4. Dave's mom said that she would buy them more special cars. These cars cost \$3 each. If she buys the boys 3 more, how much will she have to spend?
-

5. The boys used their building blocks to create a wall for the cars to drive through. They plan to stack the blocks 3 across and 9 up. How many blocks do they need to build the wall?
-

6. After they finish the wall, Dave and Sean each have 3 extra blocks. Two of these blocks are broken. How many extra blocks do they have left that are not broken?
-

Name _____ Date _____

5–2**Homework Practice****3NS2.2***Multiply by 6***Multiply.**

1. $6 \times 4 =$ _____

2. $3 \times 6 =$ _____

3. $6 \times 8 =$ _____

4. $4 \times 6 =$ _____

5. $6 \times 0 =$ _____

6. $6 \times 1 =$ _____

7. $6 \times 9 =$ _____

8. $9 \times 6 =$ _____

9. $5 \times 6 =$ _____

10. $7 \times 6 =$ _____

Solve.

- 11.** Brad's rabbit has 6 whiskers on both sides of its face. How many whiskers does the rabbit have on its face?
-

- 12.** Jan has 4 insects in a jar. Each insect has 6 legs. How many legs in all?
-

Spiral Review**Multiply. (Lesson 5–1)**

13. $3 \times 9 =$ _____

14. $3 \times 7 =$ _____

15. $6 \times 3 =$ _____

16. $5 \times 3 =$ _____

17. $4 \times 3 =$ _____

18. $8 \times 3 =$ _____

19. $0 \times 3 =$ _____

20. $7 \times 3 =$ _____

21. $3 \times 2 =$ _____

22. $3 \times 4 =$ _____

23. $3 \times 8 =$ _____

24. $9 \times 3 =$ _____

Problem-Solving Practice

3NS2.2

Multiply by 6

Solve.

1. Cindy and Mandy went to the beach. They each found 6 starfish. How many starfish do they have in all?
-

2. Each of the 6 starfish has 5 arms. The girls counted them all. How many starfish arms did the girls count?
-

3. The girls made a sandcastle with 3 waterways leading to each of their 6 towers. How many waterways did they dig altogether?
-

4. The girls each carried 6 pails with them to the beach. They found out that they really did not need so many pails, so they let a group of children use 4 of their pails. How many pails do the girls still have left to use?
-

5. Cindy has 6 dimes that she can spend on stickers. Each sticker costs 5¢.

Does she have enough money to buy 6 stickers? Explain.

6. Write a problem that can be solved by multiplying by 6.
-
-

Name _____ Date _____

5–3**Homework Practice****3MR1.1, 3AF2.2***Problem-Solving Strategy***Solve.**

- 1.** Every home on Main Street has a dog and other pets. The first house has 1 dog and 1 cat. The second house has 1 dog and 2 cats. The third house has 1 dog and 3 rabbits. The fourth house has 1 dog and 4 angel fish. If the pattern continues, the fifth house has 1 dog and how many hamsters?
-

- 2.** Ann is a pet babysitter. She gets paid to help the families on Main Street with their pets every day. The first week she earned \$2. The second week she earned \$4. The third week she earned \$6. The fourth, \$8. What did she earn by the seventh week?
-

- 3.** Ann decided to set up a pet parade. She had the pet owners walk in rows with their pets. In the first row she put 1 owner with 1 pet. The second row had 2 owners with 1 pet each. The third row had 1 pet owner and 2 pets. The fourth row had 2 pet owners with 2 pets each. The fifth row had 1 pet owner with 3 pets. If the pattern continues, what did the sixth row have?
-

Spiral Review**Multiply. (Lesson 5–2)**

4. $3 \times 6 =$ _____

5. $4 \times 6 =$ _____

6. $6 \times 6 =$ _____

7. $7 \times 6 =$ _____

Name _____ Date _____

5–4**Homework Practice****3NS2.2****Multiply by 7****Multiply.**

1. $7 \times 3 =$ _____

2. $5 \times 7 =$ _____

3. $6 \times 7 =$ _____

4. $7 \times 7 =$ _____

5. $7 \times 8 =$ _____

6. $9 \times 7 =$ _____

7. $4 \times 7 =$ _____

8. $7 \times 6 =$ _____

9. $7 \times 10 =$ _____

10. $7 \times 1 =$ _____

11. $7 \times 0 =$ _____

12. $7 \times 5 =$ _____

13. $7 \times 4 =$ _____

14. $7 \times 9 =$ _____

ALGEBRA Find each missing number.

15. $8 \times$ _____ = 56

16. $7 \times$ _____ = 35

17. _____ $\times 7 =$ 14

18. _____ $\times 7 =$ 49

Spiral Review**Solve. Use the *look for a pattern* strategy. (Lesson 5–3)**

19. Fred buys and sells sports cards. Week 1, he bought 10 cards and sold 2. Week 2, he bought 10 more and sold 2, giving him 16. Week 3, he bought 10 more and sold 2, giving him 24. If the pattern continued, how many cards did he have by the end of Week 4?
-

20. Fred collected football, basketball, and baseball cards. He has a total of 50 cards, with an equal number of football and basketball cards. He has 20 baseball cards. How many football cards does he have?
-

Problem-Solving Practice

3NS2.2

Multiply by 7

Solve.

1. The Martins will buy 2 new tires for each of their 7 bicycles. How many new tires will they buy?

2. It takes Cally 3 minutes to paint each slat on a fence. There are 7 slats in each section of the fence. How long will it take Cally to paint each section of the fence?

3. Each house on Alpine Street has 7 front windows. There are 3 houses on each side of the street. How many front windows are there in all?

4. Mario will go on vacation for 8 weeks this summer. For how many days will Mario be on vacation?

5. Nell bought 3 pairs of white socks and 4 pairs of black socks. Each pair cost \$6. Then she bought a \$5.75 hat. She got back \$12.25 in change. How much did Nell give to the cashier to pay for the socks and hat? Show your work.

6. There are an equal number of cars and bicycles in the garage. If there are 42 tires in all, how many bicycles and cars are in the garage? Explain.

Name _____ Date _____

5–5**Homework Practice****3NS2.2***Multiply by 8***Multiply.**

1. $8 \times 3 =$ _____

3. $6 \times 8 =$ _____

5. $8 \times 8 =$ _____

7. $4 \times 8 =$ _____

9. $8 \times 10 =$ _____

11. $8 \times 0 =$ _____

13. $8 \times 4 =$ _____

2. $5 \times 8 =$ _____

4. $7 \times 8 =$ _____

6. $9 \times 8 =$ _____

8. $8 \times 6 =$ _____

10. $8 \times 1 =$ _____

12. $8 \times 5 =$ _____

14. $8 \times 9 =$ _____

ALGEBRA Find each missing number.

15. $8 \times$ _____ $= 64$

16. $7 \times$ _____ $= 56$

17. _____ $\times 8 = 24$

18. _____ $\times 8 = 64$

Spiral Review**Multiply. (Lesson 5–4)**

19. $7 \times 5 =$ _____

20. $4 \times 7 =$ _____

21. $10 \times 7 =$ _____

22. $7 \times 7 =$ _____

23. $7 \times 8 =$ _____

24. $9 \times 7 =$ _____

25. $2 \times 7 =$ _____

26. $7 \times 6 =$ _____

Solve. (Lesson 5–3)

- 27.** Fred has collected a total of 80 cards. A display of Fred's cards includes 2 rows of football cards with 15 in each row. In front of the football cards are 3 rows of baseball cards with 10 in each row. In front of the baseball cards are 4 rows of basketball cards. If the pattern continues, how many basketball cards are in each of the 4 rows?

Problem-Solving Practice**3NS2.2***Multiply by 8***Solve.**

1. Find the total number of dolphins if there are 8 groups of dolphins with 5 dolphins in each group.
-

2. A dolphin has 4 fins. How many total fins do 8 dolphins have?
-

3. Eight dolphins are swimming around a tour boat. Each dolphin swims around the boat 8 times. How many times did all the dolphins swim around the boat?
-

4. The 8 tourists on the boat were able to touch 4 dolphins each. What was the total number of times a dolphin got touched?
-

5. Using their tail fins, 7 dolphins jumped in the air 8 times. What was the total number of jumps the dolphins made?
-

6. Eight tourists each took 3 photos of the dolphins. How many dolphin photos were taken in all?
-

5–6**Homework Practice****3NS2.2***Multiply by 9***Multiply.**

1. $9 \times 3 =$ _____

2. $5 \times 9 =$ _____

3. $6 \times 9 =$ _____

4. $7 \times 9 =$ _____

5. $9 \times 8 =$ _____

6. $9 \times 9 =$ _____

7. $4 \times 9 =$ _____

8. $9 \times 6 =$ _____

9. $9 \times 10 =$ _____

10. $9 \times 1 =$ _____

11. $9 \times 0 =$ _____

12. $9 \times 5 =$ _____

13. $9 \times 4 =$ _____

14. $8 \times 9 =$ _____

ALGEBRA Find each missing number.

15. $9 \times$ _____ $= 72$

16. $9 \times$ _____ $= 36$

17. _____ $\times 9 = 45$

18. _____ $\times 6 = 54$

Spiral Review**Multiply. (Lesson 5–5)**

19. $8 \times 5 =$ _____

20. $8 \times 7 =$ _____

21. $10 \times 8 =$ _____

22. $7 \times 8 =$ _____

23. $7 \times 8 =$ _____

24. $9 \times 8 =$ _____

25. $2 \times 8 =$ _____

26. $8 \times 6 =$ _____

27. $8 \times 10 =$ _____

28. $8 \times 1 =$ _____

ALGEBRA Complete the table.**29.**

Factor	4	9	9	9
Factor	9	_____	_____	_____
Product	_____	45	63	81

Problem-Solving Practice

3NS2.2

Multiply by 9

Solve

1. Jose spends \$9 on lunch each day. How much does he spend for lunch in 2 days?

3. On Mr. Dugan's farm, 9 cows can be milked in an hour. Mr. Dugan says that 45 cows will be milked in 5 hours. Is he correct? Explain.

5. For the school talent contest, 9 singers will perform for 3 minutes each. Then 5 dancers will perform for 4 minutes each. How many minutes will it take for the singers and dancers to perform in all?

2. Carmen's parrot eats 9 crackers a day. How many crackers will it eat in 4 days?

4. The So Rich cookie factory can bake 9 chocolate chip cookies a minute. Can the factory fill an order for 80 cookies in 9 minutes? Explain.

6. Ty works 9 hours a day and earns \$6 an hour. Cal works 6 hours a day and earns \$9 an hour. If they both work 5 days per week, who earns more money?

Who works longer? Explain.

Homework Practice**3MR1.1***Problem-Solving Investigation***Solve. Use any strategy.**

- 1.** Bob rode 2 miles on his bike for 9 days. What is the total number of miles he rode?
-

- 2.** Two toads are near the path. Together, they have 6 dark spots on them. The larger one has 2 times as many spots as the smaller one. How many spots does each one have?
-

- 3.** Mandy has \$5. Becky has \$5 more than Mandy. Sue has 2 times as much as Becky. How much money do the girls have together?
-

- 4.** 36 students were standing in the lunch line. The principal gave the first girl a star. Then, he gave every sixth person in back of the girl a star. How many people got stars?
-

Spiral Review**Multiply. (Lesson 5–6)**

5. $9 \times 6 =$ _____

6. $9 \times 10 =$ _____

7. $9 \times 1 =$ _____

8. $9 \times 0 =$ _____

9. $9 \times 7 =$ _____

10. $9 \times 4 =$ _____

11. $8 \times 9 =$ _____

12. $9 \times 9 =$ _____

Name _____ Date _____

5–8**Homework Practice****3AF1.5***Algebra: Associative Property***Find each product.**

1. $1 \times 2 \times 3 =$ _____

2. $5 \times 2 \times 4 =$ _____

3. $8 \times 2 \times 2 =$ _____

4. $3 \times 5 \times 1 =$ _____

5. $7 \times 2 \times 1 =$ _____

6. $8 \times 8 \times 0 =$ _____

7. $3 \times 3 \times 7 =$ _____

8. $4 \times 3 \times 2 =$ _____

ALGEBRA Find each missing number.

9. $2 \times \underline{\hspace{1cm}} \times 2 = 4$

10. $3 \times \underline{\hspace{1cm}} \times 1 = 12$

11. $\underline{\hspace{1cm}} \times 4 \times 2 = 56$

12. $\underline{\hspace{1cm}} \times 2 \times 3 = 30$

Spiral Review**Solve. (Lesson 5–7)**

13. Angie collects pairs of earrings. She hangs them on an earring tree. On the first row she hung 9 pairs, on the second row she hung 7 pairs, and on the third row she hung 5 pairs. If she continued this pattern, how many pairs would Angie hang on the fourth row? How many pairs of earrings does she have in all four rows?
-
-

14. Fred made a display with a deck of playing cards. In the first row he used 6 cards. In the second row he used 12 cards. In the third row he used 18. In the fourth row, 24. If the pattern keeps up, how many cards will be in the sixth row?
-

Problem-Solving Practice

3AF1.5

Algebra: Associative Property

Solve.

1. Mallory and her 4 friends are setting up a lemonade stand. They each brought 2 bags of lemons. Each bag has 4 lemons. How many lemons do the girls have altogether?
-

2. Mallory set up 2 tables with 3 containers of lemonade on each. Each container has 8 ice cubes. Write a number sentence to find the number of ice cubes she used.
-

3. Two of Mallory's friends were each serving three customers at each table. Write a number sentence to show the number of customers the girls were serving.
-

4. Every hour, 5 people stopped for lemonade and spent \$2 each. After 4 hours, how much had the girls earned?
-

5. At the end of the day, Mallory's 4 friends each had two \$5-bills. How much did Mallory's friends earn altogether?
-

Homework Practice**3AF2.2***Algebra: Find a Rule***Write the rule for each table. Then complete the table.****1.**

Rule:	
Input	Output
3	15
	20
6	30
9	45

2.

Rule:	
Input	Output
4	24
	30
7	
	48

3.

Rule:	
Input	Output
3	24
	32
5	
7	56

4.

Rule:	
Input	Output
2	
	21
5	35
8	56

5.

Rule:	
Input	Output
4	
	54
9	81
10	

Spiral Review**Solve. (Lesson 5–8)**

6. $8 \times 2 \times 0 =$ _____

7. $3 \times 4 \times 1 =$ _____

8. $2 \times 5 \times 2 =$ _____

9. $2 \times$ _____ $\times 2 = 16$

- 10.** Sal wants to make oatmeal for himself and his brother. The directions say to add 2 cups of boiling water to the oatmeal for 1 serving. Both Sal and his brother want double servings. How many cups of boiling water will Sal need to measure?
-

Problem-Solving Practice

3AF2.2

Algebra: Find a Rule

Find a rule. Then extend the rule to solve.

1. There are 24 crayons in 3 boxes. There are 32 crayons in 4 boxes. How many crayons are in 5 boxes?
-

2. There are 10 strawberries in 2 boxes and 15 strawberries in 3 boxes. How many strawberries are in 4 boxes?
-

3. A farmer grows carrots. Each row has 5 carrots. How many carrots are there in a garden with 7 rows? a garden with 8 rows? a garden with 9 rows?
-

4. After 6 weeks, Russ saved \$60. By the end of the next week, he had \$70. How much did he save by the third week?
-

5. The amusement park sold ride tickets in packs of 5, 10, 15, 20 tickets. What would a pack of 10 tickets cost if 20 tickets cost \$8?
-

6. A recipe calls for 2 onions for one batch. Two batches need 4 onions. How many onions are needed for four batches?
-

Name _____ Date _____

6-1**Homework Practice****3NS2.3, 3MR2.3***Relate Division to Subtraction***Divide. Use counters.**

- There are 24 cans of soda with 6 cans in each group. How many groups of cans of soda in all? _____
- Jack has a bag with 10 marbles inside. He kept 2 and gave the rest to his 4 friends. If he gives each friend the same number of marbles, how many will each friend get? _____

Divide. Use repeated subtraction on a number line or paper and pencil.

- $10 \div 5 =$ _____
- $16 \div 4 =$ _____
- $12 \div 2 =$ _____
- $9 \div 3 =$ _____

- $12 \div 3 =$ _____
- $36 \div 6 =$ _____
- $8 \div 4 =$ _____
- $15 \div 5 =$ _____

Spiral Review

**Write the rule for each table. Then, complete the table.
(Lesson 5–9)**

11. Rule: _____

Input	Output
1	9
	27
6	54
9	

12. Rule: _____

Input	Output
3	21
	35
7	
9	63

Problem-Solving Practice**3NS2.3, 3MR2.3***Relate Division to Subtraction***Use repeated subtraction to solve.**

- 1.** Perry puts 9 berries into 3 fruit cups. He puts the same number of berries in each cup. Use subtraction to show how many berries he put in each cup.
-

How many berries did he put in each cup?

_____ berries

- 3.** On Monday, Helen's math teacher gave the class 45 problems to finish by Friday. Helen will do the same number of problems each day. How many problems will she do on Friday?

_____ problems

- 5.** A box of tissue packs contains 72 total tissues. The tissues come in packs of 8 tissues each. Ally, Ann, and Missy share the tissue packs equally. How many packs of tissues does each girl get? Explain.
-
-

- 2.** Four people at the Pizza Palace left the waiter a tip. Each person left a tip of the same amount. The total tip was \$8. Use subtraction to show how much each person left for a tip.
-

How much did each person leave for a tip?

_____ seconds

- 6.** Four friends buy tickets to see a movie. They pay \$24 in all for their tickets. If each friend also spends \$2 on a drink, how much does each friend spend in all? Explain.
-
-

Name _____ Date _____

6–2**Homework Practice****3NS2.3***Relate Multiplication to Division***Use the array to complete each pair of number sentences.**

1. $\boxed{\quad} \times 4 = 12$

$\boxed{\quad} \div 3 = 4$

X	X	X	X
X	X	X	X
X	X	X	X

2. $\boxed{\quad} \times 2 = 10$

$\boxed{\quad} \div 5 = 2$

X	X	X	X	X
X	X	X	X	X

Write four related multiplication and division sentences for each set of numbers.

3. 5, 10, 50 _____

4. 6, 7, 42 _____

5. 3, 4, 12 _____

Spiral Review**Divide. (Lesson 6–1)**

6. There are 18 boys who want to play baseball. There will be 2 teams. How many boys will play on each team? _____

Divide. Use repeated subtraction on a number line or paper and pencil.

7. $8 \div 2 =$ _____

8. $21 \div 3 =$ _____

9. $42 \div 7 =$ _____

10. $10 \div 2 =$ _____

11. $9 \div 3 =$ _____

Problem-Solving Practice**3NS2.3***Relate Multiplication to Division***Use repeated subtraction to solve.**

- 1.** A mini-van has 3 rows of seats with 9 seats in all. Draw an array of circles to show the number of seats in each row. How many seats in each row?

_____ seats in each row

- 2.** Two students have 10 pennies in all. They each have the same number of pennies. Draw an array of circles to show how many pennies each student has. How many does each have?

Each has _____ pennies.

Draw arrays of counters to help you solve.

- 3.** A news reporter spent the last 24 months in 6 different countries. She stayed the same length of time in each country. How long did she stay in one country?

_____ months

- 4.** A news reporter allows 20 minutes to report the day's top stories. Today's top stories took 5 minutes each to report. How many top stories were reported today?

_____ top stories

Solve. Use arrays if you need help.

- 5.** Nina made 6 pairs of pants with 42 pockets in all. Each pair of pants has the same number of pockets. She added a button to one pocket on each pair of pants. How many pockets on each pair of pants do *not* have buttons?

_____ pockets

- 6.** The math teacher gives Harlen 24 counters. Harlen must make as many different arrays as he can with more than 1 row. How many different arrays can he make? [Remember: In an array, each row has the same number of counters.]

_____ different arrays

Name _____ Date _____

6–3**Homework Practice****3MR1.1***Problem-Solving Strategy***Solve. Use the *choose an operation* strategy.**

1. Alex is a dog that gets in trouble 3 times a day. At the end of a week, how many times does she get in trouble?

2. By the end of a week, Alex will bark 21 times. How many times does she bark each day?

3. Alex sometimes gets in trouble for leaving the yard. Last year, she left the yard 165 days in a row. How many days did she stay in the yard last year?

Spiral Review**Write the fact family for each set of numbers. (Lesson 6–2)**

4. 8, 9, 72 _____

5. 3, 7, 21 _____

6. 4, 5, 20 _____

7. 7, 8, 56 _____

8. 6, 7, 42 _____

Name _____ Date _____

6–4**Homework Practice****3NS2.3, 3MR2.3***Divide by 2***Divide.**

1. $8 \div 2 =$ _____

2. $6 \div 2 =$ _____

3. $10 \div 2 =$ _____

4. $16 \div 2 =$ _____

5. $20 \div 2 =$ _____

6. $14 \div 2 =$ _____

7. $12 \div 2 =$ _____

8. $4 \div 2 =$ _____

9. $18 \div 2 =$ _____

Divide. Write a related multiplication fact.

10. $2\overline{)12}$ _____

11. $2\overline{)18}$ _____

12. $16 \div 2 =$ _____

13. $6 \div 2 =$ _____

14. $20 \div 2 =$ _____

15. $12 \div 2 =$ _____

Spiral Review**Solve. Use the *choose an operation* strategy. (Lesson 6–3)**

16. Liz has a fish tank with a total of 18 fish. She has an equal number of solid goldfish and spotted goldfish. How many does she have of each kind of fish?
-

17. The back of the van has 2 seats that can seat 6 people. The same number of people can sit on each seat. How many people can sit on each seat?
-

Problem-Solving Practice**3NS2.3, 3MR2.3***Divide by 2***Solve.**

- 1.** Britt spent the same amount of money at 2 different stores. She spent \$2 in all. How many groups of 2 are there in \$2?
-

How much did she spend at each store?

- 3.** Casey bought a box of 18 granola bars. She will keep some and give the rest to her brother. If Casey and her brother now have the same number of bars, how many did Casey give to him?

_____ bars

- 5.** Jodie is helping her mom in the backyard. She needs to move 17 big stones to the front. The wheelbarrow can hold 2 stones. Can she move all of the stones to the front yard in 8 trips? Explain.
-
-

- 2.** Tyrell gave 4 of his model cars to his friends Ted and Ameil. He gave the same number of cars to each friend. Write a division fact to show how many cars Tyrell gave to Ted.
-

How many cars did he give to Ted?

_____ cars

- 4.** Mother washes all 14 of her children's mittens. Each child has one pair of mittens. How many children are there?

_____ children

- 6.** Ian is cleaning his room. He picked up 16 red pegs and 12 black ones. He put the same number of pegs into each of two boxes. How many pegs did he put in each box?

_____ pegs in each box

Name _____ Date _____

6–5**Homework Practice****3NS2.3, 3MR2.3***Divide by 5***Divide.**

1. $30 \div 5 =$ _____

2. $15 \div 5 =$ _____

3. $40 \div 5 =$ _____

4. $25 \div 5 =$ _____

5. $10 \div 5 =$ _____

6. $50 \div 5 =$ _____

7. $35 \div 5 =$ _____

8. $5 \div 5 =$ _____

9. $45 \div 5 =$ _____

Solve.

10. Allie wants to make iced tea. The directions say adding 10 teaspoons of tea mix to 5 cups of water will serve 5 people. She plans to use 1 cup of water. How many teaspoons of tea mix should she use? _____

11. Mark and his four friends drew 20 pictures. They each drew the same number of pictures. How many pictures did each person draw?

12. Tori takes a walk around the pond every day. From Monday to Friday, she walks a total of 10 miles. How many miles is it to walk around the pond once?

Spiral Review**Divide. (Lesson 6–4)**

13. $12 \div 2 =$ _____

14. $18 \div 2 =$ _____

15. $16 \div 2 =$ _____

16. $8 \div 2 =$ _____

17. $10 \div 2 =$ _____

18. $14 \div 2 =$ _____

Problem-Solving Practice**3NS2.3, 3MR2.3***Divide by 5***Solve.**

- 1.** Antonio scored 15 points on 5 math questions on a test. Each question was worth the same number of points. How many points did he score for each question?

_____ points

- 3.** Erica works at a pet store. It takes her five minutes to put food and water in each hamster cage. How many cages can she finish in 35 minutes?

_____ cages

- 2.** School lunch costs \$5. Marcus has \$10. For how many days can he buy lunch?

_____ days

- 4.** Joel is in charge of feeding the birds in a pet store. Each bird cage gets 5 hanging seed strings. Joel used 45 seed strings to feed all of the birds. How many cages of birds are in the store?

_____ cages

Solve. Show your work.

- 5.** Every Saturday, Mr. and Mrs. Thompson and their 3 children each have a hamburger for lunch. There are 40 hamburger patties in their freezer. In how many weeks will they finish the last of the patties?

- 6.** Today 25 girls and 20 boys rode their bikes to school. Each bike rack at school holds 5 bikes. How many bike racks were filled?

Homework Practice**3MR1.1, 3NS2.3***Problem-Solving Investigation***Solve. Use any strategy to solve below.**

- Act it out
- Draw a picture
- Look for a pattern

1. Jake went back-to-school shopping. He bought 10 items. If 2 of the items were the same, how many different items did he buy?

2. The total cost of the 2 notebooks that Jake bought was \$4. If the notebooks cost the same amount, how much money did each notebook cost?

3. Jake looked at the notebooks on sale. The first group of notebooks had 1 section, the second group had 3 sections, and the third group had 5 sections. If this pattern continues, how many sections will the fourth group have?

4. Jake, Bob, and Ted all bought new notebooks. Bob bought 2 more notebooks than Jake, and Ted bought 2 more notebooks than Bob. Ted bought 6 notebooks. How many notebooks did Bob buy?

Spiral Review**Divide. (Lesson 6–5)**

5. $20 \div 5 =$ _____

6. $15 \div 5 =$ _____

7. $45 \div 5 =$ _____

8. $25 \div 5 =$ _____

9. $50 \div 5 =$ _____

10. $10 \div 5 =$ _____

11. $35 \div 5 =$ _____

12. $30 \div 5 =$ _____

13. $40 \div 5 =$ _____

Name _____ Date _____

6–7**Homework Practice****3NS2.3, 3MR2.3***Divide by 10***Divide.**

1. $10 \div 10 =$ _____

2. $60 \div 10 =$ _____

3. $80 \div 10 =$ _____

4. $70 \div 10 =$ _____

5. $50 \div 10 =$ _____

6. $20 \div 10 =$ _____

7. $0 \div 10 =$ _____

8. $30 \div 10 =$ _____

9. $40 \div 10 =$ _____

10. $10 \overline{)80}$ _____

11. $10 \overline{)90}$ _____

12. $10 \overline{)40}$ _____

13. $10 \overline{)60}$ _____

Spiral Review**Choose the best strategy to solve. (Lesson 6–6)**

14. Sandy bought 16 new pencils. She kept 2 for herself and gave the rest to 7 of her friends. How many pencils did she give to each friend?
-

15. A new pool opened. The first day 10 children came to swim. The second day 20 children came. After the pool was open a week, 70 children were coming each day. How many children came on the fifth day the pool was open?
-

Problem-Solving Practice

3NS2.3, 3MR2.3

Divide by 10

Solve.

1. There are 30 desks with 10 desks in each row. How many rows of desks are there?

3. Mary kept a record for 90 days to see how many times she ate fish for dinner. She ate fish every 10 days. How many times did she have fish for dinner in the last 90 days?

5. Morgan has 90 cents in her pocket. All of the change is in dimes. How many dimes does Morgan have in all?

7. Kayla has a box of 80 family photos and a photo album with 10 pages. How many photos must she fit onto each page of the album to keep all of the family photos in one album?

2. Carl owns 20 video games. He stores them in boxes. There are 10 video games in each box. How many boxes are there?

4. Annie bought a bag of 80 mini-carrots. She eats 5 carrots each day for lunch and eats another 5 carrots as a snack at night. In how many days will the bag of carrots be empty?

6. Ricky spent \$90 at the supermarket. He bought \$30 worth of fruit. The rest of the money was spent on steaks. If he bought 10 steaks and each cost the same amount, what was the price of each steak?

8. Bill has a collection of 60 books that he wants to donate to the library. He wants to put an equal number of books in each box. Write an equation to show how he could divide the books into equal groups.

Name _____ Date _____

6–8**Homework Practice****3NS2.6, 3NS2.3***Division Properties*

1. $1 \div 1 =$ _____

2. $0 \div 6 =$ _____

3. $8 \div 1 =$ _____

4. $5 \div 1 =$ _____

5. $4 \div 4 =$ _____

6. $8 \div 8 =$ _____

7. $1\overline{)5}$ _____

8. $2\overline{)0}$ _____

9. $9\overline{)9}$ _____

Solve.

10. There are 15 girls who want to get pink roses that cost \$1 each. How much is needed for each girl to have a rose?
-

11. Mrs. Perkins needed 35 sheets of red paper, so she could give each student 1 sheet. When she looked on the shelf, there were no sheets of red left. How many sheets of red paper can she hand out?
-

Spiral Review**Divide. (Lesson 6–7)**

12. $50 \div 10 =$ _____

13. $60 \div 10 =$ _____

14. $80 \div 10 =$ _____

15. $40 \div 10 =$ _____

16. $20 \div 10 =$ _____

17. $90 \div 10 =$ _____

ALGEBRA Solve. Find the missing number.

18. $50 \div 10 =$

19. $\div 10 = 3$

20. $40 \div$ $= 4$

21. $60 \div$ $= 6$

Problem-Solving Practice

3NS2.6 , 3NS2.3

Division Properties

Solve.

1. Kelly divided 0 shirts into 4 equal groups. How many shirts are in each group?

_____ shirts

2. A delivery man carries 10 new chairs into 10 rooms. He puts the same number of chairs in each room. How many chairs are in each room?

_____ chair(s)

3. Each desk in an office has 1 chair. There are 8 chairs in all in the office. Write a number sentence to show how many desks are in the office.

4. Mandy arranged pictures of her family in 3 equal rows on her wall. Mandy has 3 pictures of her family. How many pictures are in each row?

5. A florist has 8 daisies to arrange in 8 vases. She puts the same number in each vase. How many flowers in all are in each vase?

6. A gardener plants 18 tulips in 1 row. How many flowers will be in each row?

Name _____ Date _____

7-1**Homework Practice****3NS2.3***Divide by 3***Divide.**

1. $15 \div 3 =$ _____

2. $18 \div 3 =$ _____

3. $27 \div 3 =$ _____

4. $6 \div 3 =$ _____

5. $9 \div 3 =$ _____

6. $12 \div 3 =$ _____

7. $30 \div 3 =$ _____

8. $21 \div 3 =$ _____

9. $3 \div 3 =$ _____

10. $0 \div 3 =$ _____

ALGEBRA Write $>$, $<$, or $=$.

11. $21 \div 3$ ○ 6×3

12. 25×1 ○ $27 \div 3$

ALGEBRA Complete the table.

13.

Rule: Divide by 3.						
Input	27		33		24	
Output		10		1		7

Spiral Review**Divide. (Lesson 6–8)**

14. $8 \div 8 =$ _____

15. $7 \div 1 =$ _____

16. $8 \div 1 =$ _____

17. $5 \div 1 =$ _____

18. $9 \div 1 =$ _____

19. $5 \div 5 =$ _____

20. $7 \div 7 =$ _____

21. $9 \div 9 =$ _____

Problem-Solving Practice

3NS2.3

Divide by 3

Solve.

1. Walter has 9 pencils. Every week he uses 3 of them. In how many weeks will Walter use up all of his pencils?

_____ weeks

2. Elyse served herself and 2 friends 24 ounces of juice. She filled each glass with the same amount of juice. How many ounces of juice did she pour in each glass?

_____ ounces

3. The gym teacher has 18 basketballs divided equally among 3 bags. For practice she takes 2 basketballs from each bag. How many basketballs are left in one of the bags?

4. Donna bought 3 new pairs of jeans for \$30. What was the price of each pair of jeans?

5. Alana mailed 6 letters in 3 different mailboxes. She mailed the same number of letters in each mailbox. How many letters did she mail in each mailbox?

_____ letters

6. The 27 students in Mrs. Penny's class are in line to leave school. Mrs. Penny lets her students leave in groups of 3 at a time. How many groups of students will leave?

_____ groups

7. All three of Tasha's dogs eat the same amount of food. She feeds them a total of 12 pounds of dry food and 12 pounds of canned food every week. How many pounds of food does each dog eat per week?

Name _____ Date _____

7-2**Homework Practice****3NS2.3***Divide by 4***Divide.**

1. $16 \div 4$ _____

2. $32 \div 4$ _____

3. $28 \div 4$ _____

4. $8 \div 4$ _____

5. $36 \div 4$ _____

6. $12 \div 4$ _____

7. $40 \div 4$ _____

8. $14 \div 2$ _____

ALGEBRA Find each missing number.

9. $12 \div$ _____ $= 4$

10. _____ $\div 4 = 10$

11. $20 \div$ _____ $= 5$

12. $24 \div$ _____ $= 4$

ALGEBRA Complete the table.

13.

Rule: Divide by 4.						
Input	8		16	20		
Output		3			7	8

Spiral Review**Divide. (Lesson 7-1)**

14. $27 \div 3$ _____

15. $30 \div 3$ _____

16. $6 \div 3$ _____

17. $12 \div 3$ _____

18. $9 \div 3$ _____

19. $15 \div 3$ _____

20. $24 \div 8$ _____

21. $18 \div 6$ _____

22. $21 \div 3$ _____

23. $3 \div 3$ _____

Problem-Solving Practice

3NS2.3

Divide by 4

Solve.

1. Each minute, 4 gallons of water flow into the tub. There are now 8 gallons of water in the tub. How many minutes did that take?

_____ minutes

3. Eric pumps the front tire of his bike to 32 pounds. Each push of the pump puts 4 pounds of air into the tire. How many times must Eric push the pump to fill the tire?

_____ times

5. Ollie lent \$24 in equal amounts to 4 of his friends. Melissa lent \$18 in equal amounts to 3 of her friends. Who lent each friend more money? Explain.

2. The Finos have a carton of 12 eggs. If the family eats four eggs a day, how long will they have eggs to eat?

_____ days

4. A boat rental shop rents paddleboats that can hold up to 4 riders. The shop has enough paddle boats for up to 28 people. How many paddleboats does the shop have?

_____ paddleboats

6. A grocery store shelf can hold 4 large boxes of laundry detergent. The store clerk put 25 boxes of laundry on the shelves. What is the least number of shelves needed for the display? Explain.

Name _____ Date _____

7–3**Homework Practice****3MR1.1, 3AF2.2***Problem-Solving Strategy***Solve.**

- 1.** Mr. Frank is planning a parade. First, 36 musicians will march and play. Second, 32 soldiers will march in uniform; third, 28 horses will join. Fourth, will be clowns. If the pattern continues, how many clowns will walk in the parade?
-
- 3.** Mr. Frank is collecting money to rent the parade floats that will cost \$40. He has \$24 so far. How long will it take to have enough money if he collect \$4 a week?
-
- 5.** There are 28 horses in the parade. They are walking in rows, with 4 horses in each row. How many rows of horses are in the parade?
-
- 2.** Every time Mr. Frank buys 4 pots of flowers for the float, the flower shop will give him 1 pot free. After 4 weeks, he had 50 pots of flowers. How many pots did he get free?
-
- 4.** There are a total of 30 floats for the parade. The parade will last 60 minutes. Mr. Frank wants the floats to travel at an equal pace throughout the parade. How many floats should travel through the parade in 30 minutes?
-
- 6.** For every float, Mr. Frank wants 6 people. If there are 20 floats, how many people will Mr. Frank need?
-

Spiral Review**Divide. (Lesson 7–2)**

7. $24 \div 4$ _____

8. $4 \div 4$ _____

9. $28 \div 4$ _____

10. $0 \div 4$ _____

11. $36 \div 4$ _____

12. $16 \div 4$ _____

Name _____ Date _____

7–4**Homework Practice****3NS2.3***Divide by 6 and 7***Divide.**

1. $12 \div 6$ _____

2. $18 \div 6$ _____

3. $28 \div 7$ _____

4. $36 \div 6$ _____

5. $49 \div 7$ _____

6. $14 \div 7$ _____

7. $60 \div 6$ _____

8. $21 \div 7$ _____

9. $42 \div 6$ _____

10. $63 \div 9$ _____

ALGEBRA Complete the table.

11.

Rule: Divide by 6.					
Input	36			24	
Output		2	10		7

12.

Rule: Divide by 7.					
Input			35		63
Output	7	8		6	

Spiral Review**Solve. Use the make a table strategy. (Lesson 7–3)**

13. Rides at an amusement park cost \$24 for every 6 people. If a group of 12 people go to the amusement park, how much will they pay?
-

14. Renee is saving her money to buy a t-shirt that costs \$16. She saves \$3 the first week, \$5 the second week, \$2 the third week, and \$3 the fourth week. How much more money will she need to save?
-

Problem-Solving Practice**3NS2.3***Divide by 6 and 7***Solve.**

- 1.** Len will put 18 goldfish into 6 fishbowls. Each bowl will have the same number of fish. How many goldfish will go in each bowl?

_____ goldfish

- 2.** There are 14 customers standing in 7 checkout lines. Each line has the same number of customers. How many customers are in each line?

_____ customers

- 3.** There are 54 cards in a card game. All of the cards are dealt out to the players. Each player gets 6 cards. How many players are in the game?

_____ players

- 4.** The winning team scored 49 points. There were 7 players on the team. If each player scored the same number of points, how many points did each player score?

_____ points

- 5.** Mother is making 6 goody bags for Leroy's party. She will put 24 apple fruit rolls and 24 cherry fruit rolls into the bags. If she puts the same number in each bag, how many fruit rolls will be in each goody bag?

_____ fruit rolls

- 6.** There are 7 cupcakes for the party. Each cupcake has 1 candle for each year of the birthday boy's age. There is also an extra candle on each cupcake for good luck. If 49 candles were used on the cupcakes, how old is the birthday boy? Explain.

7–5**Homework Practice****3NS2.3***Divide by 8 and 9***Divide.**

1. $16 \div 8$ _____

2. $32 \div 8$ _____

3. $81 \div 9$ _____

4. $8 \div 8$ _____

5. $36 \div 9$ _____

6. $45 \div 9$ _____

7. $90 \div 9$ _____

8. $72 \div 8$ _____

9. $56 \div 8$ _____

10. $63 \div 9$ _____

ALGEBRA Find the missing factor or quotient.

11. $27 \div$ _____ $= 3$

12. _____ $\div 9 = 10$

$3 \times$ _____ $= 27$

$10 \times$ _____ $= 90$

13. $54 \div$ _____ $= 9$

14. $64 \div$ _____ $= 8$

$6 \times$ _____ $= 54$

$8 \times$ _____ $= 64$

Spiral Review**Divide. (Lesson 7–4)**

15. $36 \div 6$ _____

16. $18 \div 6$ _____

17. $63 \div 7$ _____

18. $56 \div 7$ _____

19. $49 \div 7$ _____

20. $35 \div 7$ _____

21. $70 \div 7$ _____

22. $24 \div 6$ _____

23. $42 \div 6$ _____

24. $54 \div 6$ _____

Problem-Solving Practice**3NS2.3***Divide by 8 and 9***Solve.**

- 1.** A group of 8 children go to the fair. They share 16 balloons equally. How many balloons does each child get?

_____ balloons

- 2.** A group of 9 people go on 27 rides at the fair. Each one goes on the same number of rides. How many rides does each person go on?

_____ rides

- 3.** Marta bought 48 pieces of silverware. She puts them in a tray with 8 sections. Each section has the same number of pieces. How many pieces of silverware are in each section of the tray?

_____ pieces

- 5.** Ty and Shaheed each have 36 rocks. They put their rocks together in a box. The box has 9 sections. If they put the same number of rocks in each section, how many rocks are in each? Explain.

- 4.** Mina sets the dining room table. Every night she puts out 45 dishes for 9 places at the table. How many dishes are set at each place?

_____ pieces

- 6.** A mural in the aquarium shows octopuses and starfish. Each starfish has 5 arms. Each octopus has 8 legs. There are 20 starfish arms in all. The combined number of starfish arms and octopus legs is 60. How many octopuses are in the mural? Explain.

Name _____ Date _____

7–6**Homework Practice****3NS2.7***Determine Unit Cost***Find each unit cost.**

- 1.** 3 markers for \$9 _____
- 2.** 5 books for \$40 _____
- 3.** 1 sandwich for \$3 _____

Find each unit cost to determine the better buy.

- 4.** 5 posters for \$25
7 posters for \$28 _____
- 5.** 9 pens for \$18
5 pens for \$15 _____

Solve.

- 6.** Sally has \$10. Ice cream treats are 5 for \$5. She buys 3 ice cream treats. How much change will she receive? _____

Spiral Review**Divide. (Lesson 7–5)**

- | | |
|------------------------------|------------------------------|
| 7. $18 \div 9$ _____ | 8. $54 \div 9$ _____ |
| 9. $63 \div 9$ _____ | 10. $36 \div 9$ _____ |
| 11. $27 \div 9$ _____ | 12. $45 \div 9$ _____ |
| 13. $90 \div 9$ _____ | 14. $72 \div 8$ _____ |
| 15. $81 \div 9$ _____ | 16. $40 \div 8$ _____ |
| 17. $56 \div 8$ _____ | 18. $64 \div 8$ _____ |

Problem-Solving Practice

3NS2.7

Determine Unit Cost

Solve by finding each unit cost.

1. Dave is going camping with his family. Sleeping bags are on sale for 3 for \$27. He has to buy 3 to get the sale price. One sleeping bag costs \$10. Dave needs 5 sleeping bags. Would Dave save money if he got 6 sleeping bags?
-

2. Dave has to buy 1 flashlight for each of the 5 members of his family. He spent \$50. How much did each flashlight cost?
-

3. Dave needs to find the best buy on bottled water. He can get a case of 48 bottles for \$24, or he can get 5 cases of 10 bottles for \$3 a case. Which is the better buy?
-

4. Dave bought 3 lunches for \$15. How much would it cost for 1 lunch if each lunch cost the same amount?
-

5. The campground charges \$21 a week. How much does 1 day cost?
-

6. Dave's family spent \$27 on gasoline to drive to the campground. They used 9 gallons of gasoline. How much did gas cost per gallon?
-

Homework Practice*Problem-Solving Investigation***Solve. Use any strategy.**

- 1.** Cindy and Pam bought 6 roses for their mother. Roses cost \$10 for 10. How much did they spend altogether? _____

 - 2.** Cindy decided to grow her own roses. One rose bush cost \$20 and produced 10 roses. Since Cindy paid \$10 for 10 roses the year before, did Cindy save money this year by growing her own roses? Explain. _____
-
-

- 3. ALGEBRA** What is the next number in the pattern?

72, 75, 78, 81, _____

- 4.** Sue and her brother Bill were given a case of 30 juice drinks. Sue drinks 2 a day and Bill drinks 1 a day. How long will the case of drinks last? _____


Spiral Review
Find each unit cost. (Lesson 7-6)

- 5.** 4 balls for \$12 _____
- 6.** 5 notebooks for \$5 _____
- 7.** 2 paint sets for \$6 _____

Find each unit cost to determine the better buy.

- 8.** 10 ice pops for \$10
5 ice pops for \$10 _____
- 9.** 6 books for \$18
3 books for \$12 _____

Name _____ Date _____

7–8**Homework Practice****3AF1.1, 3AF1.2***Algebra: Expressions and Equations*

Write an expression and an equation for each situation.

- Meg has 10 books. She was given 2 more for her birthday.
How many books does Meg have? _____
- There are 12 dolls and 4 girls. If everyone has equal amounts,
how many dolls can each girl have? _____

Choose one of the symbols $+$, $-$, \times , or \div to make the equation true.

3. $15 \bigcirc 5 = 2 \times 5$

4. $50 - 8 = 6 \bigcirc 7$

5. $9 \bigcirc 8 = 79 - 7$

6. $24 \div 6 = 32 \bigcirc 8$

Find a number that makes the equation true.

7. $7 \times 3 = \underline{\hspace{2cm}} - 2$

8. $7 \times 9 = 30 + \underline{\hspace{2cm}}$

9. $8 \times 7 = \underline{\hspace{2cm}} - 4$

10. $7 \times 6 = 37 + \underline{\hspace{2cm}}$

Spiral Review

Solve. Use any strategy. (Lesson 7–7)

- Jerry spent \$2 on a drink, \$3 on a pretzel, and \$5 on a ticket to see the movie. He got \$10 in change. How much money did he start with?
-

- Lindy's class has 3 more students than Pablo's class. Pablo's class last year had 6 more students than it does this year. This year, Pablo's class has 20 students. How many students are in Lindy's class this year?
-

Problem-Solving Practice

3AF1.1, 3AF1.2

Algebra: Expressions and Equations

Write an expression and an equation for each situation.

1. The Lopez family of 4 went camping 5 years in a row. Every year they brought 2 different guests. How many guests did they bring altogether?

2. The Lopez family has 3 tents, and each tent has room for 3 people. How many people do they have room for altogether?

3. There are 20 campers in each section of the camp ground, with an equal number in each section. There are 4 sections. How many campers are in each section?

4. Over the 5 years that the Lopez family went camping, they made 8 new friends each year. How many new friends did they make altogether?

5. Thirty-two of the Lopez family's new friends came from 4 different states, with the same number from each state. How many came from each of the states?

Name _____ Date _____

7–9**Homework Practice****3AF1.1***Algebra: Translate Words to Expressions***Write each phrase as an expression.**

1. 56 students divided equally among 7 tables _____
2. the total of 7 classes of 10 students _____
3. 65 less than 75 _____
4. 25 more than 50 _____
5. difference between 34 and 30 _____
6. run 2 times a day for 30 minutes each time _____
7. the product of 9 and 8 _____
8. 4 boxes each have 6 books _____

Write phrases for each expression.

9. $25 \div 5$ _____
10. 7×8 _____

Spiral Review

Choose one of the symbols $+$, $-$, \times , or \div to make the equation true. (Lesson 7–8)

11. $65 \bigcirc 5 = 10 \times 6$

12. $64 \div 8 = 8 \bigcirc 1$

Find a number to make the equation true.

13. $6 \times 4 = \underline{\hspace{2cm}} - 2$
14. $9 \times 9 = 50 + \underline{\hspace{2cm}}$
15. $8 \times 6 = \underline{\hspace{2cm}} - 9$
16. $7 \times 9 = 50 + \underline{\hspace{2cm}}$

Problem-Solving Practice

3AF1.1

Algebra: Translate Words to Expressions

Write an expression for each situation. Then find the value of the expression to solve.

1. Eva has \$10 more than Trina. Trina has saved \$2 each day for a week. How much money does Eva have?
-

2. Berto is 10 years older than Suna. Suna is 15 years old. How old is Berto?
-

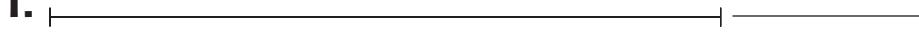
3. Molly will be on vacation at the beach with Ana for 8 days. Tino will join them for half of the time that they are at the beach. How long will Tino stay at the beach?
-

4. At 4:00 P.M. in the afternoon, there were only 4 bikes left in the bike rack at school. At noon, there were 10 times that many bikes in the rack. How many bikes were in the rack at noon?
-

5. Each package of chicken soup mix serves 6 people. Ruby wants to serve 36 people chicken soup. How many packages of soup should she buy?
-

6. Mrs. Perez bought 27 balloons. If 9 children come to her son's birthday party and she divides the balloons equally, how many balloons will each child bring home?
-

Name _____ Date _____

8-1**Homework Practice****3MG1.1***Length to the Nearest Half Inch***Measure to the nearest half inch.****1.****2.****3.**

- 4.** Kevin's ruler is broken and starts at $1\frac{3}{4}$ inches. If he wants to draw a line that is 2 inches long, at what point will he stop his pencil? _____

Using what you know about measurement, answer the question.

- 5.** Which is the best choice for measuring, using paper clips or using a ruler? Explain.

Spiral Review**Write an expression for each situation. Then find the value of the expression to solve. (Lesson 7–9)**

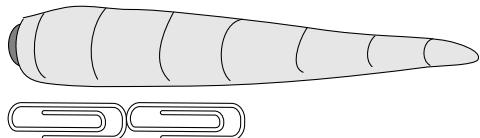
- 6.** Melinda has \$5. Janet has \$10 more than Melinda. How much money does Janet have?

- 7.** Betty volunteered at the pledge drive for 12 hours. Her brother volunteered for half as long.

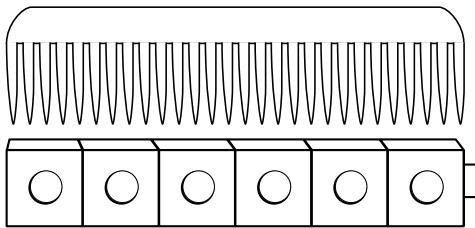
Problem-Solving Practice**3MG1.1***Length to the Nearest Half Inch***Solve.**

- 1.** Max drew a line that was 3 counting cubes long. Draw the line that Max drew.
-

- 2.** How many paper clip units long is the carrot?



- 3.** Harry uses connecting cubes to measure a comb. It measures 6 connecting cubes long. Will it be more or less than 6 inches?



- 4.** Frank measures the width of his desk in paper clip units. His desk measures 28 paper clip units. How can he use this information to find the width of his desk in inches?
-
-

- 5.** Richard and Tanya measured the length of a long piece of chalk. Richard said the chalk was 8 units long, and Tanya said it was 3 units long. Explain why both measurements might be correct.
-
-
-

- 6.** Delon measures the length of his shoe in paper clips and in inches. His shoe measured 8 inches, and 5 paper clips. Are the paper clips longer or shorter than an inch?
-
-

Name _____ Date _____

8-2**Homework Practice****3MG1.1***Customary Units of Length*

**Choose the most appropriate unit to measure each length.
Choose from inch, foot, yard, or mile.**

1. width of a pizza box _____
2. length of a football field _____
3. height of a telephone pole _____

Choose the best estimate.

4. the length of a table
10 feet or 10 miles _____
5. the height of a book
12 inches or 12 miles _____
6. New York to Chicago
approximately 1,000 miles or
approximately 1,000 feet _____

Convert.

- | | |
|---------------------------|---------------------------|
| 7. 36 inches = _____ feet | 8. 3 feet = _____ yard(s) |
| 9. 2 feet = _____ inches | 10. 2 yards = _____ feet |

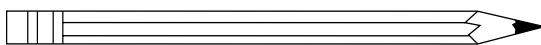

Spiral Review

**Use an inch ruler to answer the following questions.
(Lesson 8-1)**

11. Is the width of a crayon closer to an inch or a half inch? _____
12. Is the width of the computer key with a Z on it closer to an inch or a half inch? _____

Problem-Solving Practice**3MG1.1***Customary Units of Length***Solve.**

1. About how many inches long is the pencil shown in the picture?



3. Kira went on a hiking trip. She hiked for 4 hours in one day. What unit of measurement would you use to tell the distance she walked in 4 hours?

5. Carrie wants to make a paper cover for her math book. Explain how you would measure a book to find out how much paper to use.

2. What measuring tool would you use to measure the length of your foot?

4. Hector wants to measure the length of his dog's tail. What tool is he most likely to use?

What unit of measure?

6. There will be a new floor in the gym. The principal had to find the length and width of the gym. The measurements were written on the order form, but the units of measure were accidentally erased. The order form said the gym floor is 15 _____ by 20 _____. What units of measure were most likely erased?

Homework Practice**3MG1.2***Problem-Solving Strategy***Solve.** Use the **work backward** strategy.

- 1.** Mr. Lawrence has 20 students now. At the beginning of the week he had double the amount plus 1. How many students did he have at the beginning of the week?
-

- 2.** Janet had some money in her wallet on Monday. On Tuesday, she spent \$4 on lunch. On Wednesday, she earned \$5 for doing chores for Mrs. Smith. On Thursday, Janet spent \$8 at the movies. After the movies, she had \$18 in her wallet. How much money did Janet have in her wallet on Monday?
-

- 3.** Juan walked a total of 15 miles this week. He walked the same distance on Monday as he did on Tuesday. He walked 7 miles on Wednesday and 1 mile on both Thursday and Friday. How many miles did he walk on Tuesday?
-

Spiral Review

**Choose the most appropriate unit to measure each length.
Choose from *inch*, *foot*, *yard*, or *mile*.** (Lesson 8–2)

- 4.** To measure the length across a gym. _____
- 5.** To measure the height of a drinking glass. _____

Convert.

6. 4 feet = _____ inches

7. 1 yard = _____ feet

8. 36 inches = _____ feet

9. 6 feet = _____ yards

Name _____ Date _____

8-4**Homework Practice****3MG1.1***Customary Units of Capacity***Choose the most appropriate unit to measure each capacity.****Choose from cup, pint, quart, or gallon.**

1. a glass of milk

2. a jug of orange juice

Choose the best estimate.

3. a glass of water

1 c or 1 gal

4. a kitchen sink

15 c or 15 gal

Spiral Review**Solve. Use the *work backward* strategy. (Lesson 8-3)**

5. Sarah went to a show. The performer put a scarf into a hat. When he pulled it out it was twice as long. When he did it again the scarf was 5 inches shorter and measured a total of 17 inches. How long was the scarf before the trick began?

6. After a pattern repeats itself 5 times, there are 15 circles, 5 squares, and 10 hearts. How many of each shape are there in the original pattern? Can we tell what the pattern is?

Problem-Solving Practice

3MG1.1

Customary Units of Capacity

Solve.

1. Alan has a glass of juice with lunch. Did he drink about 2 cups or 2 gallons of juice?

2. A container of milk holds 4 quarts. Is that more, less, or the same as 1 gallon?

3. Krista's teacher asked her how much water she thinks a large bathtub can hold. Krista said, "About 48." Krista did not say the unit of measure. What unit should she have said?

4. A punch bowl at a party has 1 gallon of juice in it. Guests take juice from the bowl using cups. How many cups of juice are in the punch bowl?

5. Angie wants to fill a gallon fish bowl with water. She will fill a drinking glass with tap water, then pour it into the bowl. About how many times will she probably need to fill the glass in order to fill the fish bowl? Explain.

6. Mrs. Polk made a gallon of soup for her children for lunch. The 3 children ate 2 small bowls of soup each. A bowl is a little more than 1 cup. About how many quarts of soup do you think is left? Explain.

Name _____ Date _____

8–5**Homework Practice****3NS2.8***Problem-Solving Investigation***Use any strategy to solve. Tell what strategy you used.**

- 1.** The class has 25 students. Each student has 4 pencils at their desks. How many pencils are there altogether?
-

- 2.** What numbers are missing in the pattern below?

2, 4, __, 16, __, 64, __

- 3.** Amy ran 8 blocks to get to her friend's house. The way home was half as long. How many blocks was the total trip?
-

- 4.** Marcus had a birthday party. He invited 6 friends from school, 5 from his soccer team, and 12 from other places. How many were invited in all?
-

Spiral Review**Choose the best estimate. (Lesson 8–4)**

- 5.** a bowl of soup
1 pint or 1 gallon
-

- 6.** a bathroom sink
5 cups or 5 gallons
-

- 7.** Kenny has 16 cups of milk. How many gallons does he have?
-

- 8.** Jill has 2 pints of lemonade in a pitcher. How many cups of lemonade does she have?
-

Name _____ Date _____

8–6**Homework Practice****3MG1.1***Customary Units of Weight*

Tell whether the following items weigh *less than one pound*, *about one pound*, or *more than one pound*.

1. bike _____

2. pencil _____

3. soccer ball _____

Choose the most appropriate unit to measure the weight of each object. Choose from *ounce*, or *pound*.

4. thumb tack _____

5. an adult _____

6. sheet of paper _____

Choose the better estimate.

7. An empty plastic jug 4 oz or 4 lb _____

8. A pair of socks 2 oz or 1 pound _____

Solve.9. What is the total weight of a bag of potatoes that weighs 5 pounds and a box of rice that weighs 32 ounces?
_____10. One bag of oranges weighs 3 pounds and 4 ounces. A bag of apples weighs 64 ounces. Which one weighs more?
_____**Spiral Review****Use any strategy to solve. (Lesson 8–5)**11. How many quart jugs of water will it take to fill a gallon jug?
_____12. Jimmy and Karen went to buy some lunch. Jimmy spent \$3.50 and Karen spent \$4.25. If they paid \$10.00, how much change did they receive?

Problem-Solving Practice

3MG1.1

Customary Units of Weight

Solve.

1. Jake bought a bag of apples. Does it weigh about 3 pounds or 3 ounces?

3. Peggy told her mom that the new puppy weighs, "about 3." She didn't give the unit. What unit of weight should she have said after the number 3?

5. Bart is putting groceries in a paper bag. He bought a loaf of bread, a cupcake, a bag of 10 apples, a bag of flour, and a bag of chips. He puts 3 items in one bag. Now the bag weighs about 2 pounds. Which 3 items did he probably put in the bag?

2. A loaf of bread weighs about 1 pound. About how many ounces does it weigh?

4. A customer weighs an orange on the scale in the fruit store. The orange weighs 5 ounces. The customer does not want to buy more than 1 pound of oranges. What is the greatest number of oranges the customer can buy? Explain.

6. A bag of white potatoes weighs 2 pounds. A bag of sweet potatoes weighs 16 ounces. Tell how you could rearrange the potatoes so that you have two bags of potatoes that weigh the same.

Name _____ Date _____

8–7**Homework Practice****3MG1.4***Convert Units of Time***Convert.**

1. $4 \text{ hours} = \underline{\hspace{2cm}}$ minutes

2. $360 \text{ minutes} = \underline{\hspace{2cm}}$ hours

3. $\frac{1}{2} \text{ hour} = \underline{\hspace{2cm}}$ minutes

4. $3 \text{ quarter hours} = \underline{\hspace{2cm}}$ minutes

5. $180 \text{ minutes} = \underline{\hspace{2cm}}$ hours

6. $12 \text{ hours} = \underline{\hspace{2cm}}$ minutes

Solve.

7. Janet plans to meet her friend to see a movie at 6:45. It will take her a quarter of an hour to get ready to leave her house and 3 quarters of an hour to get to the theatre. What time must Janet start getting ready in order to be on time to meet her friend?
-

8. Juan wants to have dinner ready by 6:30. It takes 30 minutes for the enchilada casserole to be ready. He also wants to serve chicken wings, which will take 1 hour 15 minutes. What times must he put the chicken wings and the casserole in the oven in order to have all the food ready on time?
-

Spiral Review**Use customary units of weight to solve the problems. (Lesson 8–6)**

9. How many ounces are in a pound?

10. If 1 soccer ball weighs about one pound and 1 golf ball weighs about 1 ounce, how many golf balls = 1 soccer ball?

11. How many ounces are in 1 pound, 7 ounces?

Problem-Solving Practice**3MG1.4***Convert Units of Time***Solve.**

- 1.** James spent one hour on his math homework and 15 minutes on spelling. For how many minutes in all did James do homework?

_____ minutes

- 2.** The basketball game lasted for 2 hours. How many minutes did the game last?

_____ minutes

- 3.** Rolanda visited her grandmother. She stayed for an hour and ten minutes. How many minutes in all did the visit last?

_____ minutes

- 4.** It took a painter an hour to paint the living room and 45 minutes to paint the kitchen. How much longer did it take to paint the living room than the kitchen? Tell the time in minutes and in hours.

_____ minutes _____ hour

- 5.** Tom works for 3 hours every day after school. Keesha works for 210 minutes after school. Who works longer?

How much longer? Tell the time in minutes and in hours.

_____ minutes or _____ hour

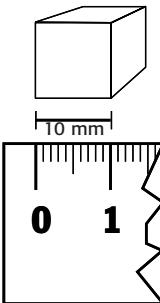
- 6.** Jesse swam the race in 124 seconds. Her teammate Carrie swam the race in 2 minutes and 10 seconds. Who won the race?

By how many seconds?

by _____ seconds

9–1**Homework Practice****3MG1.1***Metric Units of Length*

- 1.** List 4 things you may measure in millimeters:
-
-
-
-



**Choose the most appropriate unit to measure each length.
Write millimeter, centimeter, meter, or kilometer.**

- | | |
|--|--|
| 2. width of a pencil _____ | 5. height of a lamp _____ |
| 3. thickness of a banana peel _____ | 6. distance to school _____ |
| 4. thickness of a pillow _____ | 7. length of a soccer field _____ |

Choose the best estimate.

- | | | |
|-------------------------------------|--|--|
| 8. CD case
12 mm or 12 cm | 9. computer mouse
13 mm or 13 cm | 10. tv monitor
70 cm or 70 m |
|-------------------------------------|--|--|
-
-
-

Spiral Review

Convert. (Lesson 8–7)

- | | |
|---|--|
| 11. 3 hours = _____ minutes | 12. _____ minutes = 4 quarter hours |
| 13. _____ hours = 120 minutes | 14. _____ minutes = 1 hour and half |
| 15. _____ minutes = 1 quarter hour | 16. 4 hours = _____ minutes |

Problem-Solving Practice**3MG1.1***Metric Units of Length***Solve.**

- 1.** Which is about 1 centimeter long:
a fingernail or a pencil?

- 3.** A tomato plant is a little less than 1 yard in height. How can you describe this length in metric units?

- 5.** Gail and Eric estimated the length of a screwdriver. Eric estimated about 11 cm. Gail said about 10 cm. They used a ruler to measure it, and found it was exactly 10 cm and 8 mm. Who had a better estimate? Why?

- 2.** Which metric unit would you use to measure the distance between the front of the classroom and the back of the classroom?

- 4.** Estimate the length of the crayon in centimeters.

about _____ centimeters



Now use a centimeter ruler to measure the length of the crayon to the nearest centimeter.

_____ centimeters

- 6.** Estimate your height to the nearest meter.

About _____ meters

Now use a metric ruler to check your estimate. What is your height?

_____ meters

Was your estimate close? _____

Explain.

Name _____ Date _____

9–2**Homework Practice****3MR1.1***Problem-Solving Strategy***Solve. Use the *guess and check* strategy.**

- 1.** Dolores bought some new pillows for her living room. She bought twice as many green pillows as blue pillows, and one less red pillow than green pillows. She bought 9 pillows altogether. How many pillows of each color did she buy?
-
-
-

- 2.** Pam and Casey swim every day. Pam swims twice as far as Casey, but they always finish at the same time. If they both begin at 8 A.M., and Casey swims 500 meters, how many meters does Pam swim?
-
-

- 3.** Arthur reads every day. On weekdays he reads at least 30 minutes a day. On the weekends, he reads twice as long. About how long does he read each week?
-
-

- 4.** Cecilia was burning a new CD for a friend. The CD could record up to 60 minutes. How many 3- or 4- minute songs could Cecilia burn on to the CD?
-
-

Spiral Review**Choose the most appropriate unit to measure each length.****Write *millimeter*, *centimeter*, *meter*, or *kilometer*.****(Lesson 9–1)****5.** height of a cup _____**6.** distance traveled on a road trip _____**7.** thickness of cardboard _____

Name _____ Date _____

9–3**Homework Practice****3MG1.1***Metric Units of Capacity***Choose the most appropriate unit to measure each capacity.****Write *milliliter* or *liter*.**

1. bottle of soda _____
 2. water in a pool _____
 3. dressing on salad _____
 4. cream in coffee _____
 5. hot chocolate in a mug _____
 6. water in a birdbath _____

Compare. Use *>*, *<*, or *=*.

7. 5 L ○ 5 mL
 8. 17 mL ○ 17 L
 9. 10 mL ○ 5 L
 10. 1 L ○ 9 mL
 11. 3 mL ○ 4 L
 12. 10 mL ○ 1 L

13. Hugo wants to make a pitcher of lemonade. Should he use 2 L or 2 mL of water? Explain.
-
-
-
-

Spiral Review**Solve. Use the *guess and check* strategy. (Lesson 9–2)**

14. Mirna is making muffins for the bake sale. One batch is blueberry and one batch is banana nut. The third batch is twice as big as the blueberry and banana nut batch. If Mirna made 96 muffins, how many muffins were in the blueberry and banana nut batches?
-
15. Dan watched soccer practice for an hour on Tuesday. Wednesday and Thursday he watched twice as long, and on Friday, he watched an hour longer than he did the day before. How much time did Dan spend watching soccer practice?
-

Problem-Solving Practice**3MG1.1***Metric Units of Capacity***Solve.**

- 1.** Tanya has a cold. What metric unit of measure should her mother use to measure the amount of liquid cold medicine Tanya should take?
-

- 3.** Stacy invited ten people to her party. Should she buy 4 L of juice or 40 mL of juice? Explain.
-
-

- 5.** Maurice wants to measure the amount of water in a mixing bowl. Should he measure in mL or L? Explain.
-
-

- 2.** Circle the best estimate for each.

Bottle cap: 40 L 40 mL

Bucket: 7 L 7 mL

Mug: 480 L 480 mL

List the containers in order from least to greatest capacity.

- 4.** The chef put 2 spoonfuls of vanilla extract into a cake recipe. About how much vanilla extract is this, 2 mL or 2 L?
-

- 6.** Below is Dena's recipe for fruit punch. Write the missing metric units of capacity for each ingredient.

Dena's Fruit Punch

Frozen orange juice: 2 _____

Pineapple juice: 360 _____

Apple juice: 1 _____

Name _____ Date _____

9–4**Homework Practice****3MR2.3, 3MR2.8***Problem-Solving Investigation***Use any strategy to solve.**

- 1.** Leo was building a fence. The fence is sold in sections that are each 7 meters long. How many sections should Leo buy if he needs 63 meters of fence?

- 2.** Ciana baked a batch of cookies. Susana ate 4 cookies, Dimas ate 7 cookies, Pedro ate 6 cookies and Ciana ate 3. There were 4 cookies left over. How many cookies did Ciana bake?

- 3.** Benito was painting some rooms in his house. Each room used 1 liter of paint, but his living room used 2 liters. If Benito paints 6 rooms, how many liters of paint did he use?

- 4.** Olivia has three containers of water. The first container has twice as much water as the second container. The third container has 1 more liter than the first and second container combined. There is a total of 19 L of water. How much water is in each container?

Spiral Review**Compare. Use $<$, $>$, or $=$. (Lesson 9–3)**

5. $4 \text{ L} \underline{\hspace{1cm}} 4 \text{ mL}$

6. $5 \text{ mL} \underline{\hspace{1cm}} 1 \text{ L}$

7. $20 \text{ mL} \underline{\hspace{1cm}} 10 \text{ L}$

8. $1 \text{ L} \underline{\hspace{1cm}} 1 \text{ mL}$

- 9.**
- Name three things that could be measured in liters.
-
- _____
-
- _____
-
- _____

- 10.**
- Name three things that could be measured in milliliters.
-
- _____
-
- _____
-
- _____

Name _____ Date _____

9–5

Homework Practice

3MG1.1

Metric Units of Mass

1. List 4 things you may measure in grams:

2. List 4 things you may measure in kilograms:

Choose the most appropriate unit to measure each mass.

Write gram or kilogram.

3. one strawberry

4. a bag of flour

5. a bag of concrete

6. cocoa mix

7. rubber bands

8. a bag of dog food

Spiral Review

Use any strategy to solve. (Lesson 9–4)

9. Cheryl uses 35 beads to make a bracelet. She uses red, blue, green, yellow, and orange beads. There is an equal number of red and blue beads. There is an equal number of green and yellow beads. There are five orange beads and 8 blue beads. How many yellow beads are there?

Problem-Solving Practice

3MG1.1

Metric Units of Mass

Solve.

1. List the items below in order from least to greatest mass.

sheet of paper
box of crayons
feather

3. A paper clip has a mass of 1 gram. Is it reasonable to say that a television has a mass of about 30 grams? Explain.
-
-

5. Wendy has 2 erasers. Together, they have the same mass as her pencil box. Her pencil box has a mass of 300 grams. If the erasers have the same mass, is it reasonable that her erasers each have a mass of 150 grams? Explain.
-
-

2. What metric unit of mass would you use to measure the mass of a spoon?
-

4. Matt has a pencil, a desk, a computer, and a piece of paper. Which items should be measured in kilograms? Which items should be measured in grams?
-
-

6. One side of a balance scale has a box of computer games. The other side has 1 large book. Another balance scale has three of the same books as the previous scale, and 6 baseball bats on the other side. Each baseball bat is 1 kg. What is the mass of the box of computer games?
-
-

Name _____ Date _____

9–6**Homework Practice****3AF1.4, 3MG1.4***Metric Unit Conversions***Convert each unit.**

1. _____ centimeters = 1 meter

2. 10 millimeters = _____ centimeter

3. _____ meters = 2 kilometers

4. 1 liter = _____ milliliters

5. _____ grams = 5 kilograms

6. _____ centimeters = 7 meters

7. 3 kilometers = _____ meters

8. 8,000 milliliters = _____ liters

9. A piece of tape is 2 centimeters wide. How many millimeters wide is this?

10. A poster is 1 meter long. How many centimeters long is the poster?

Spiral Review**Choose the most appropriate unit to measure each mass.****Write *gram* or *kilogram*. (Lesson 9–5)**

11. one grape _____

12. teapot _____

13. a quarter _____

14. teaspoon of salt _____

15. a bag of pet food _____

16. a couch _____

Problem-Solving Practice

3AF1.4, 3MG1.4

Metric Unit Conversions

Solve.

1. A bedroom door is 3 meters tall.
What is its height in centimeters?

2. A kitten has a mass of 2,000 grams. What is its mass in kilograms?

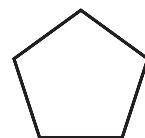
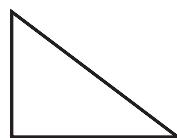
3. Each paper cup holds 500 milliliters of water. How many cups of water would you need to fill a 2-liter bottle?

4. A bag of apples has a mass of 2,000 grams. What is the mass of 4 bags of apples in kilograms?

5. The art teacher displays several pictures side-by-side across a wall. Each picture is about 24 cm wide. The line of pictures measures 1 meter from end to end. How many pictures are displayed in the line? Explain.

6. Greg has 6,500 milliliters of water in a large jug. He wants to pour the water into liter bottles so that the water will be easier to store. What is the least number of bottles he will need? Explain.

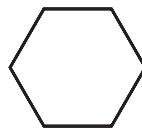
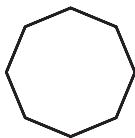
Name _____ Date _____

10-1**Homework Practice****3MG2.1***Polygons***Classify each polygon.**

1. _____

2. _____

3. _____



4. _____

5. _____

6. _____

Solve.

- 7.** Eve is setting the dinner table with placemats and napkins. What are some of the polygons she may be seeing on her table?

- 8.** Carlos drew a shape that had three straight sides and one rounded side. He said his shape is not a polygon. Is he correct? Explain.

Spiral Review**Convert each unit. (Lesson 9–6)**

9. $2 \text{ L} =$ mL

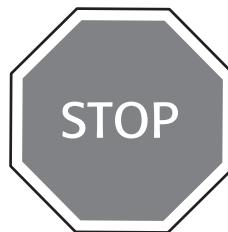
10. $8 \text{ km} =$ m

11. $4,000 \text{ g} =$ kg

Problem-Solving Practice**3MG2.1****Polygons****Solve.**

- 1.** Each tile on a floor has 5 sides and 5 angles. What shape is each of the tiles?

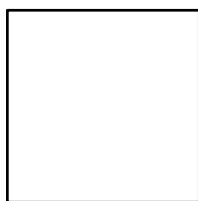
- 2.** What is the shape of the stop sign?



- 3.** Peter made a hexagon using 6 toothpicks. He now wants to change the hexagon into an octagon. How many more toothpicks does he need?

- 4.** Is a circle a polygon? Why or why not?

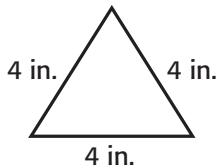
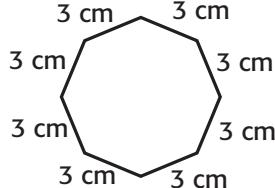
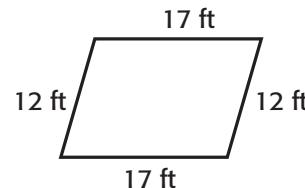
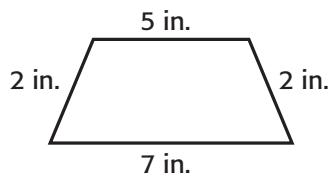
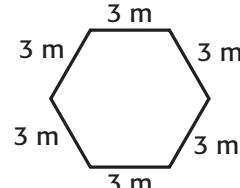
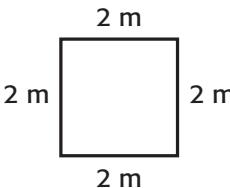
- 5.** James says the figure below is a polygon. Karen says the figure below is a quadrilateral. Who is correct? Explain.



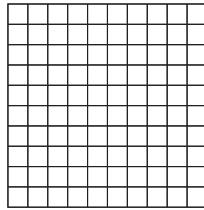
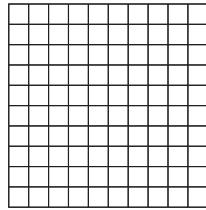
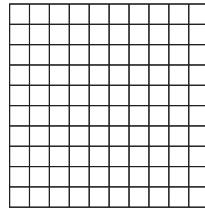
- 6.** Lana drew a design using the same number of hexagons and octagons. The design has a total of 42 sides. How many hexagons are in the design?

_____ hexagons

Name _____ Date _____

10-2**Homework Practice****3MG1.3****Perimeter****Find the perimeter of each figure.****1.****2.****3.****4.****5.****6.**

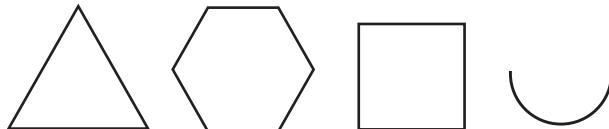
Using the grids, create a shape with the following perimeters.



7. $5 + 4 + 5 + 4$

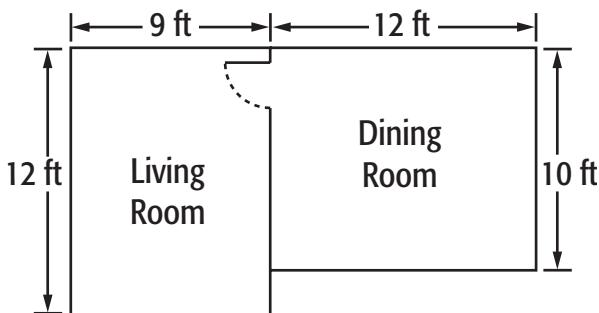
8. $6 + 2 + 2 + 6$

9. $2 + 9 + 2 + 9$

Spiral Review**Solve. (Lesson 10-1)****10.**

Which figure doesn't fit? Tell why.

11. Is the sun a plane figure? Explain your answer.**12.** How many sides does an octagon have? _____

Problem-Solving Practice**3MG1.3****Perimeter****Solve.**

- 1.** Jean will put a paper border around the 4 walls in the living room. How many feet of border paper will she use?

_____ ft

- 2.** How much border paper is needed to go around the walls of the dining room?

_____ ft

- 3.** A rose garden is hexagonal in shape. Two of the sides are 14 feet and the remaining four sides are 16 feet each. How much fencing is needed to completely enclose the garden?

_____ ft

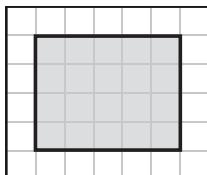
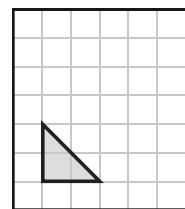
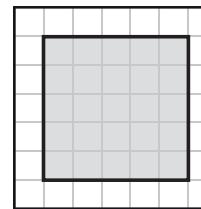
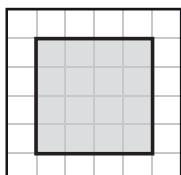
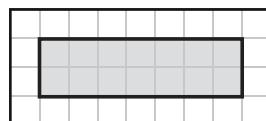
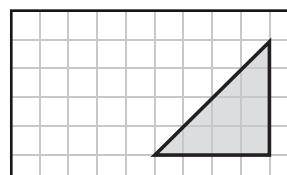
- 4.** Each of two bulletin boards is a 6 ft by 8 ft rectangle. How much border paper is needed to go around both boards?

_____ ft

- 5.** The perimeter of a small room is 34 feet. If the room is rectangular in shape and it is 7 feet wide, how long is the room?

_____ ft

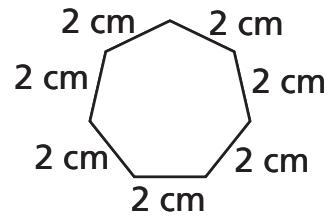
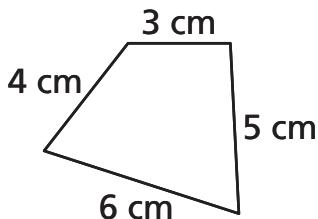
- 6.** Zoe will sew lace around a rectangular tablecloth. The tablecloth is 5 feet long and 4 feet wide. If lace costs \$2 per foot, how much will Zoe pay for the lace she needs?

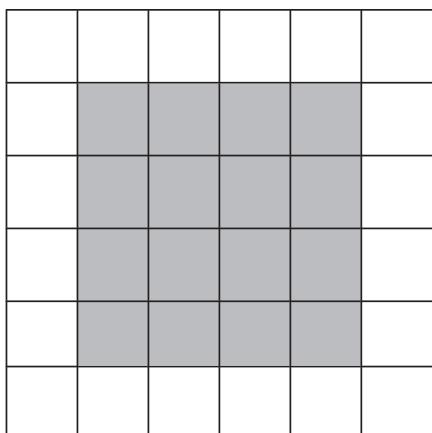
10-3**Homework Practice****3MG1.2****Area****Find the area of each shaded figure.****1.****2.****3.****4.****5.****6.****Draw each figure described. Then find the area.**

- 7.** Sean and Jim were pouring some new concrete. They needed to fill a square that was 2 units by 2 units. What was the area of concrete poured? _____
- 8.** Alfonso's swimming pool is 9 units by 8 units. What is the area of the pool? _____

Spiral Review**Find the perimeter of each figure. (Lesson 10-2)**

9. $3 + 4 + 5 + 6 =$ _____ **10.** $2 + 2 + 2 + 2 + 2 + 2 + 2 =$ _____



Problem-Solving Practice**3MG1.2****Area**

Shaded part = area of floor covered by a rug

Use the model above to solve.

- 1.** What is the area of the rug in square units?

_____ square units

- 2.** What is the area of the whole floor, including the rug covered area?

_____ square units

- 3.** What is the area of the floor that is not covered by a rug?

- 4.** If the rug were 5 units long and 4 units wide, how much greater would its area be than the one shown in the model?

_____ square units greater

- 5.** Shawna wants to buy the rug shown above. The rug costs \$2 a square unit. Use repeated addition to find the price of the rug above.

- 6.** Kaitlin wants to buy a rug that is 5 units long and 3 units wide. Draw a model of the rug to find the area.

_____ square units

10-4**Homework Practice***Problem-Solving Strategy***3MR1.2, 3MG1.3****Solve. Use the *solve a simpler problem* strategy.**

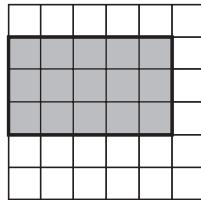
- Tommy, Katy and Lily were eating grapes. Tommy ate twice as many grapes as Katy, and Lily ate half as many grapes as Katy. If Katy ate 6 grapes, how many grapes did the three of them eat in all?

- Pat and Rich drove to the beach last weekend. It took them twice as long to get back as it did to drive there. If they spent 9 hours traveling to and from the beach, how long did it take them to drive each way?

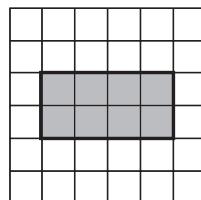
- Rosa was very proud of her floral arrangement. It contained 8 black-eyed susans, 12 tulips, 15 daisies, and the rest were roses. If her arrangement had 48 flowers, how many were roses?

- Carol was collecting quarters from different states. She had 5 quarters from California, 8 from Texas, and twice as many from Florida as from California and Texas combined. If Carol had 39 quarters, how many were from Florida?

- Amy bought valentines for her class. They were sold in boxes of 8. Amy has 24 students in her class. How many boxes of valentines will she need to purchase?

Spiral Review**Find the area of each figure. (Lesson 10-3)****7.**

_____ square units

8.

_____ square units

Name _____ Date _____

10-5**Homework Practice****3MG2.2, 3MG2.4***Triangles and Angles***Answer the following *true or false*.**

1. An isosceles triangle has two equal sides. _____
2. An equilateral triangle only has two sides that are equal.

3. A scalene triangle cannot contain a right angle. _____
4. A right triangle cannot be an equilateral triangle. _____
5. An isosceles triangle can be a right triangle. _____
6. A scalene triangle has no equal sides. _____

On the grids below, draw the following triangles.

- | | |
|-----------------------------------|---------------------------------|
| 7. an equilateral triangle | 8. an isosceles triangle |
| 9. a right triangle | 10. a scalene triangle |

7.

8.

9.

10.

Spiral Review**Solve. Use the *solve a simpler problem* strategy. (Lesson 10-4)**

- 11.** Colleen ate apples 5 times a week. How many apples did she eat in 3 weeks?
-

- 12.** Alicia scored three times as many points as Wade. If Wade scored 9 points, how many points did both children score in the game?
-

Problem-Solving Practice**3MG2.2, 3MG2.4***Triangles and Angles***Solve.**

- 1.** Elaine drew a triangle with only two of the sides the same length. What kind of triangle did she draw?
-

- 2.** The sides of a window shaped like a triangle are each different. What kind of triangle is the window shaped like?
-

- 3.** An equilateral triangle has 2 sides that are each 4 inches long. What is the length of the third side? How do you know?
-
-
-

- 4.** Billy has a pattern block of a right triangle and Laura has one of a scalene triangle. Tell how the pattern blocks are alike.
-
-

Tell how they are different.

- 5.** The flower bed in the park by Amy's house is in the shape of an equilateral triangle. One side of the triangular flower bed is 40 feet long. Amy walked around all three sides of the triangle. How far did she walk?
-

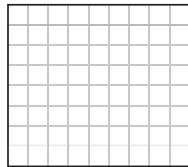
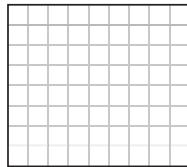
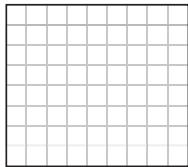
- 6.** Ron is drawing a triangle. One side is 3 inches long. One side is 6 inches long. His triangle is not an isosceles triangle or a right triangle. What kind of triangle did Ron draw?
-

How do you know?

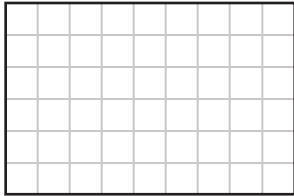
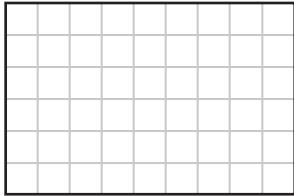
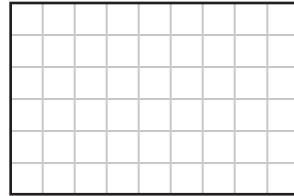
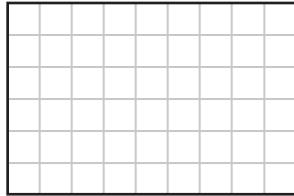
Name _____ Date _____

10-6**Homework Practice****3MG2.3, 3MG2.4***Quadrilaterals***Answer the following true (T) and false (F) questions.**

1. A rectangle is a quadrilateral. _____
2. Some quadrilaterals have parallel sides. _____
3. A parallelogram has two pairs of parallel sides. _____
4. A square is a rectangle. _____
5. A square must have four right angles. _____
6. A parallelogram has right angles. _____

On the grids below, draw the following quadrilaterals.

- 7.** a rectangle **8.** a parallelogram **9.** a square

Spiral Review**Draw each type of triangle. (Lesson 10-5)****10.****11.****12.****13.**

- 10.** Draw an isosceles triangle.

- 12.** Draw a right triangle.

- 11.** Draw a scalene triangle.

- 13.** Draw an equilateral triangle.

Problem-Solving Practice**3MG2.3, 3MG2.4***Quadrilaterals***Solve.**

1. Rhonda makes two different quadrilaterals with toothpicks. Both have sides of the same length. Name one of the quadrilaterals she could have made?

2. The pattern blocks in a box are quadrilaterals except for one. What shape could the block that is not a quadrilateral be?

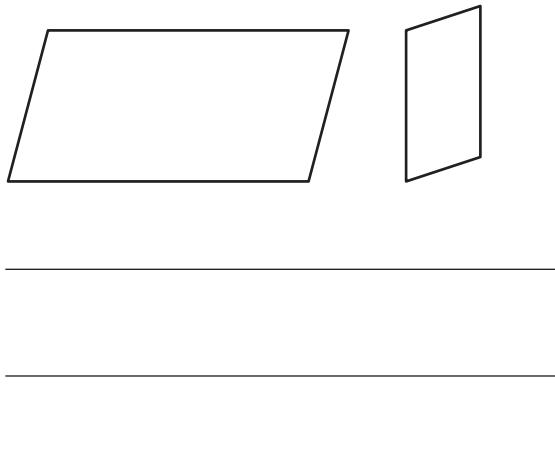
3. Three picture frames are on a dresser. Two are shaped like squares and the other is shaped like a parallelogram. How many sides are there in all in the frames?

_____ sides

4. Collin says that all quadrilaterals are polygons, but not all polygons are quadrilaterals. Is he correct? Explain.

5. Three students were asked to draw a parallelogram. Each drew a different shape, but each was correct. Explain how that can be.

6. Are both of the shapes shown below parallelograms? Explain.



Name _____ Date _____

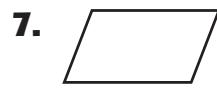
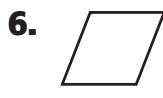
10-7**Homework Practice****3MG1.2, 3MR1.1***Problem-Solving Investigation***Use any strategy to solve.**

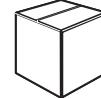
- 1.** Irene had 15 thank you notes to write for her birthday gifts. She writes 3 thank you notes a night. How many nights will it take her to finish her notes?
-

- 2.** Elena and Ricky bought fruit. For every 2 apples she bought, he would buy 3 kiwi. If Elena bought 6 apples, how many kiwi did Ricky buy?
-

- 3.** Catalina was selling fruit in her neighborhood. She visited 6 houses on her block, and 7 houses on the next block. By the time she was finished, she had visited 19 houses in all. How many houses must she have visited on the third block?
-

- 4.** Matt and Cecelia are going to Washington, D.C. on vacation and want to visit the Capitol, the Washington Monument, and the National Zoo in one day. They only have 8 hours and want to spend twice as much time at the Zoo as the other monuments. How much time can they spend at the Capitol and the Washington Monument?

**Spiral Review****Identify each quadrilateral. (Lesson 10–6)**

10-8**Homework Practice****3MG2.5****Solid Figures****Identify each solid figure.****1.****2.****3.**

- 4.** Luisa was trying to describe the item used to hold her morning orange juice. What solid figure would you consider a juice glass to be?
-

- 5.** Ella was exercising with a large round object. What solid figure would you consider this yoga ball to be?
-

Spiral Review**Use any strategy shown below to solve. (Lesson 10-7)**

- Choose an operation
- Draw a picture
- Guess and check
- Solve a simpler problem

- 6.** Cesar was hanging a garland around the room. The garland was 40 feet long. He needed to tack it up in five feet sections. How many sections of garland are there?
-

- 7.** Sigrid wrote two numbers. The sum of the numbers is 8. The product of the numbers is 15. What are the two numbers?
-

10-8

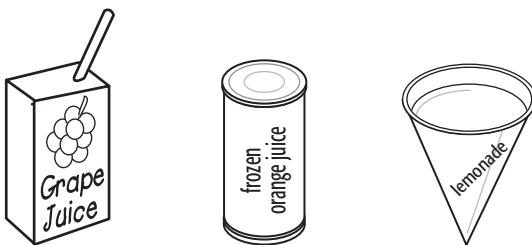
Name _____ Date _____

Problem-Solving Practice

3MG2.5

Solid Figures

Solve. Use the art for questions 1–2.



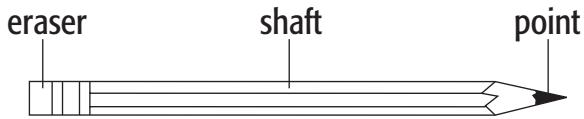
1. Penny had a drink in a container shaped like a rectangular prism. What did Penny drink?

2. What is the shape of the orange juice container?

3. Lorena was searching for the perfect pine tree. If the tree were perfect, it might be in this solid shape. What would it be?

4. Ricky traced around the bottom of a box shaped like a pyramid. What shape did Ricky draw?

5. Which of these pencil parts is shaped like a cylinder? A cone?



6. Hector kept his toys neatly stored in his toy chest. What solid figure would you consider his toy chest to be?

Name _____ Date _____

10-9

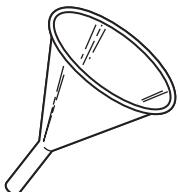
Homework Practice

3MG2.6

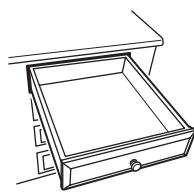
Complex Solid Figures

Identify the figures that make each complex solid.

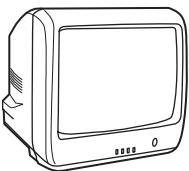
1.



2.



3.



4.



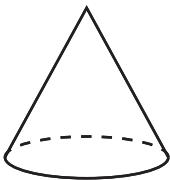
Solve.

5. Lucy was helping her parents construct a concrete birdbath in her backyard. They had a cone shape and a flattened cylinder. How do you think they put this birdbath together?

Spiral Review

Identify each solid figure. (Lesson 10–8)

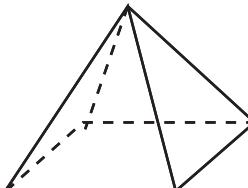
6.



7.



8.

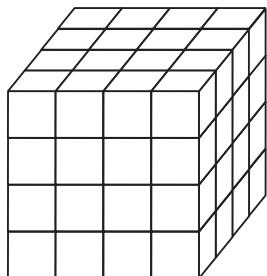
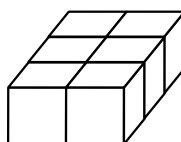
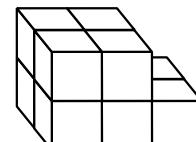
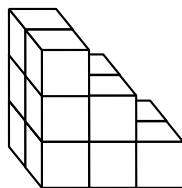
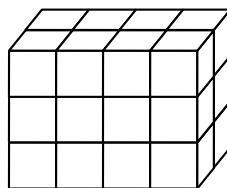
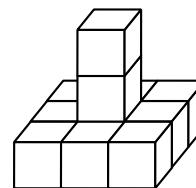
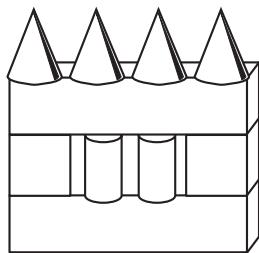


Problem-Solving Practice

Complex Solid Figures

Solve.

1. Paul had a number of tall, thin cylinders and cones. He needed to construct a fence around his pet's play area. Draw the structure you think Paul created.
 2. Alma was excited to be creating the furniture for her new bedroom. Alma had two rectangular prisms, two cubes, and five flattened cylinders to use for her design. Draw what you think her new room may have looked like.
 3. Lina and Jose were very busy building a sand castle at the beach last week. They used 15 cones, 8 cylinders, 5 rectangular prisms, a pyramid, and 10 cubes in their design. It won a prize! Recreate the castle that won a prize at the beach last week.

10-10**Homework Practice****3MG1.2***Measurement: Volume***Find the volume of each solid figure.****1.****2.****3.****4.****5.****6.****Spiral Review****Identify the figures that make this complex solid. (Lesson 10-9)****7.** Name the solid figures in the complex figure above.**8.** Carmen and Luisa were carefully looking at a ferris wheel. What solid figures do you think they could find in that ferris wheel?

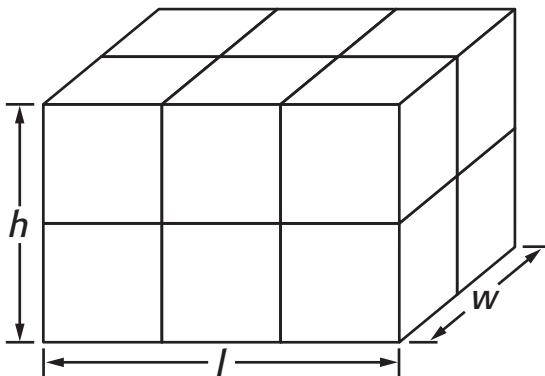
10-10

Name _____ Date _____

Problem-Solving Practice

3MG1.2

Measurement: Volume

Solve.

1. How many cubic units long (l) is the box? _____ cubic units

How many cubic units wide (w)?
_____ cubic units

How many cubic units high (h)?
_____ cubic units

2. What is the volume of the box in cubic units?

_____ cubic units

3. Miko's jewelry box is 4 units long, 5 units wide, and 6 units high. What is its volume?

_____ cubic units

4. Haki built a box out of 24 cubic units. What could the dimensions of the box be?

5. A ring box is 3 inches long, 2 inches wide, and 1 inch high. What is the volume of 2 of these boxes?

_____ cubic inches

6. Each block is 1 cubic inch in volume. How many blocks could you fit into a box that is 4 in. long, 4 in. wide, and 4 in. high?

about _____ blocks

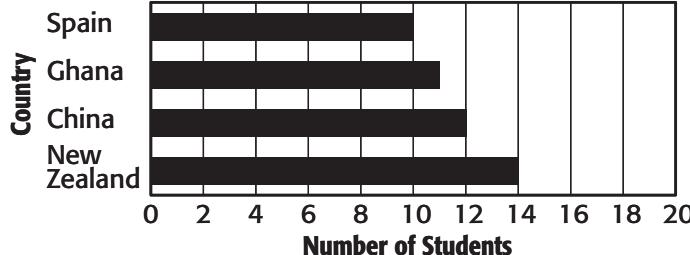
11-1**Homework Practice****Bar Graphs****3SDAP1.3, 3MR2.3**

- 1.** Display the data in a vertical bar graph.

What Pets Do You Have?		
Kind of Pet	Tally	Number of Responses
Cat		8
Dog		6
Horse		2
Bird		5
Fish		3

For exercises 2–4, refer to the graph.

Students Who Attended Travel Day



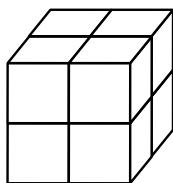
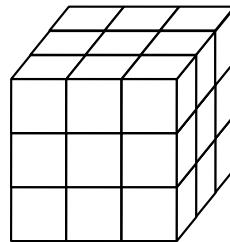
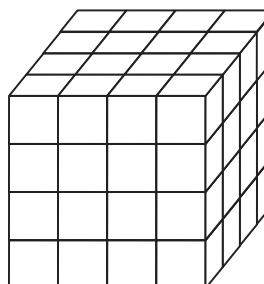
- 2.** How many students attended the Ghana Travel Day?

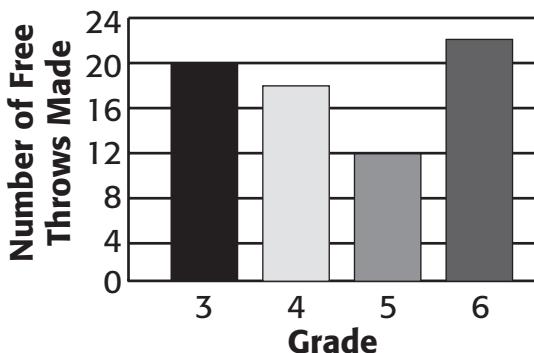
- 3.** How many more students attended the New Zealand Travel Day than the Spain Travel Day?

- 4.** How many students attended Travel Day?

Spiral Review

Find the volume. (Lesson 10–10)

5.**6.****7.**

Problem-Solving Practice**3SDAP1.3, 3MR2.3***Bar Graphs***For Exercises 1–6, refer to the graph.**

- 1.** How many free throws did Grade 3 make on Field Day?

_____ free throws

- 3.** How many free throws did Grade 4 make?

_____ free throws

How can you tell?

- 5.** How would you change the bar graph to show that Grade 2 made 6 free throws?
- _____
- _____

- 2.** Which grade shown in the graph made the most free throws?

Grade _____

How can you tell?

- 4.** What numbers does the scale show?
- _____
- _____

How would the bar graph change if you changed the scale to show every two numbers?

- 6.** How many free throws were made altogether by Grades 3 through 6?

_____ free throws

Name _____ Date _____

11-2**Homework Practice****3SDAP1.3*****Line Plots*****Display the set of data in a line plot.****1.**

Blue Jays Seen at Bird Feeder		
Number of Blue Jays	Tally	Number of Responses
4	/	1
5	///	3
6	//	2
8	///	3

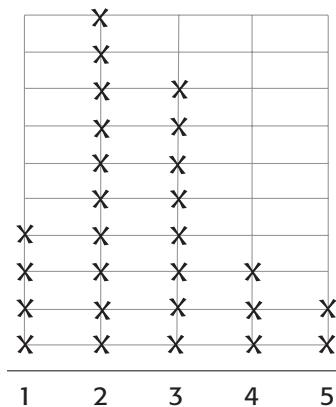
For Exercises 2–4, refer to the line plot that shows the number of states students have visited.

- 2.** How many states have most students visited?

- 3.** How many students have visited three states?

- 4.** How many students participated in this survey?

How Many States Have You Visited?


Spiral Review (Lesson 11-1)

- 5.** Take the line plot used for Exercises 2–4 and display it in a horizontal bar graph.
- 6.** Why might we use a vertical bar graph rather than a horizontal bar graph to display information?

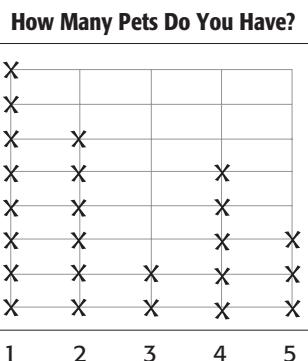
Problem-Solving Practice***Line Plots***

For Exercise 1, use the data.

1. Nine people were surveyed about how many chores they have. Make a line plot of the data.

Number of Chores		
2	4	3
5	3	4
3	5	4

For Exercises 2–4, use the line plot that shows the number of pets owned by students.



2. What number of pets is owned by the least number of students?

3. What number of pets is owned by the most number of students?

4. How many students were surveyed?

Name _____ Date _____

11-3**Homework Practice****3SDAP1.2***Problem-Solving Strategy***Solve. Use the *make a list* strategy.**

1. Prima's Pizzeria offers two types of crust: thin or thick. They also offer five toppings: pepperoni, sausage, onions, mushrooms, green peppers. If you chose one type of crust and two different toppings on each pizza, how many different pizzas can you make?

2. Cristina has one yellow, one purple, and one pink tulip bulb to plant. How many different ways can she arrange the tulip bulbs in a row?

3. Francisco needs to do quite a few errands. He needs to stop by the cleaners, the post office, the hardware store, and the bank. There are a number of ways he can tackle his list of stops. How many ways can he accomplish his tasks?

4. At the end of the year, the class had a cookout. They had hamburgers, cheeseburgers, and hot dogs. For dessert they had ice cream or cake. They served water or lemonade. How many different meals were possible choosing a main dish, a dessert, and a beverage?

Spiral Review**Display the set of data in a line plot. (Lesson 11-2)**

5. In which week were the most loons seen?

6. How many loons were seen during all 4 weeks?

Number of Loons Seen	
Week	Tally
1	/
2	///
3	///
4	///

Homework Practice*Identify Probability*

Describe the probability of landing on each number. Write *certain*, *likely*, *unlikely*, or *impossible*.

1. 2 _____

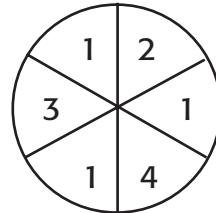
2. 5 _____

3. 1 _____

4. 1 or 4 _____

5. an even number _____

6. an odd number _____

**Solve.**

7. Is it certain or likely that a regular coin will land heads if flipped once?

8. Is it unlikely or impossible to roll a 10 on a number cube that has the numbers 0–5 on it?

Spiral Review**Solve. (Lesson 11-3)**

9. There are two girls and a boy in a row of seats on a bus. How many different ways can they sit in that row?

10. Pablo can choose ham, turkey, tomato, or cheese on his sandwich. If he chooses two toppings, how many different sandwiches can he make?

11. List all of the three-digit numbers that can be made using 1, 3, and 7.

12. Carla has red beads, white beads, blue beads, and gold beads. If she uses one bead of each color, how many different ways can she arrange the beads in a row?

Problem-Solving Practice**3SDAP1.1***Identify Probability***Solve.** Use the words **certain, likely, unlikely, or impossible**.

A number cube has 6 sides numbered 1 through 6.

1. Describe the probability of tossing a 7 if you toss the number cube.
-
2. Describe the probability of tossing a 6 if you toss the number cube.
-

A bag has 6 green grapes and 8 red grapes.

3. Keisha is going to pick one item from the bag. How likely is it that she will pick a grape?
-
4. How likely is it that she will pick a red grape?
-

A spinner is divided into 10 equal sections numbered 1 through 10.

5. If Clea spins the spinner, how likely is it that she will land on a number less than 3?
-
6. How likely is it that she will land on either an odd or even number?
-

Name _____ Date _____

11-5**Homework Practice****3MR1.1, 3NS2.1***Problem-Solving Investigation*

Use any strategy shown below to solve. Tell what strategy you used.

- Make a model
- Guess and check
- Make a table
- Work a simpler problem
- Work backward
- Make a list

1. There are 5 small bags of banana chips, 8 small bags of pretzels, and twice as many packets of nuts as pretzels. How many bags of snacks are there?

2. The baby's quilt is 2 feet wide by 3 feet long. Mark's mom offered to make one twice as wide and twice as long. What will the perimeter of the new quilt be?

3. The combined age of Irene's pets is 23 years. The cat is 5 years older than the dog. If the dog isn't 10 yet, how old could the cat be?

4. Marta has 2 dimes, 4 nickels, a quarter, and 10 pennies. Does she have enough to buy an apple that costs 75 cents?

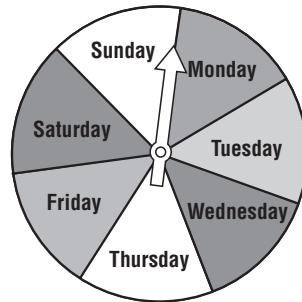
5. Tara gets to her hotel at 11:15 A.M. She was traveling for 1 hour 45 minutes. At what time did Tara start traveling?

6. If you add 54 to a number, subtract 29, and the result is 30, what was your original number?

Spiral Review

Describe the probability. Write *certain*, *likely*, *unlikely*, or *impossible*. (Lesson 11-4)

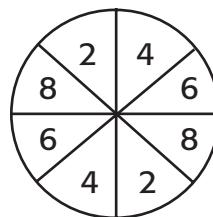
7. You will land on a weekday _____
8. You will land on a weekend day _____
9. You will land on a month of the year _____
10. You will land on a day that is either a weekday or weekend day _____



Name _____ Date _____

11-6**Homework Practice*****Make Predictions*****3MR3.3, 3SDAP1.4****The tally chart shows the results of spinning the spinner 50 times.**

1. Make a prediction for the next number.
-



2. If you were to spin another 10 times, do you think the outcomes would be more even? Explain your answer.
-

3. There are 25 fruit candies in the bag: 8 orange, 10 lemon, and 7 strawberry. What flavor would you be most likely to pick? Explain.
-
-

Outcome	Tally	Number
2		15
4		10
6		12
8		13

4. If there were 13 orange, 13 strawberry, and 10 lemon fruit candies left in the bag, which would you have a better chance of picking: orange, strawberry, or lemon? Explain.
-
-

Spiral Review (Lesson 11-5)**Use any strategy to solve.**

5. Jose had 25 cents in his pocket. What were all of the possible coin combinations he could have had?
-

6. Mr. Bolton was building a fence. He bought 20 lengths of fencing that were each 8 feet long. The perimeter of the fence was 145 feet. How much fencing did he have left over?
-

Problem-Solving Practice**3MR3.3, 3SDAP1.4***Make Predictions*

Place a red crayon, a yellow crayon, and a green crayon in a brown lunch bag. Pick a crayon 25 times and keep a tally in the table below. Then answer the questions.

Crayons in a Bag		
Outcome	Tally	Total
red		
yellow		
green		

1. What color did you pick the most frequently?
 2. What color would you probably pick next?
 3. What do you think your results would look like if you picked crayons twice as many times?
-

Repeat the experiment above, but pick 50 times. Add your data to the chart above and compare your results.

4. What do you think will happen if you add another color crayon?
-

Add one more color and pick another 25 times. Record the color and your data to the chart below.

Crayons in a Bag		
Outcome	Tally	Total
red		
yellow		
green		

Name _____ Date _____

12-1**Homework Practice****3NS3.1***Parts of a Whole***Draw a picture for each fraction. Shade the fraction.**

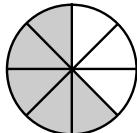
1. two-sixths

2. one-seventh

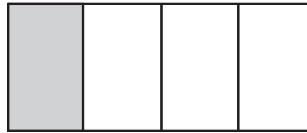
3. five-eighths

4. $\frac{1}{5}$ 5. $\frac{2}{4}$ 6. $\frac{1}{3}$ **What fraction is shaded?**

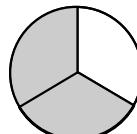
7.



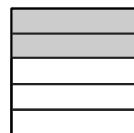
8.



9.



10.



Spiral Review**The tally chart shows the results of picking a name out of a hat 25 times and then replacing it each time.**

Pick a Name		
Outcome	Tally	Total
Ali		9
Kate		7
Devin		5
Aisha		4

11. What name is most likely to be pulled next? Why?_____
_____**12. What two names are equally likely to be picked? Explain.**_____

Problem-Solving Practice

3NS3.1

Parts of a Whole

Solve.

1. One half of the wall is blue and one half is yellow. What fraction shows the part of the wall that is blue?
-

2. A muffin is cut up into 3 equal parts. One of the parts has been eaten. What fraction of the muffin has been eaten?
-

3. Betty baked a meatloaf. She cut it into 5 equal slices. The family ate 3 of the slices. What fraction of the meatloaf did they eat?
-

4. Tom baked an apple pie and cut it into equal pieces. Tom ate one piece, which was $\frac{1}{6}$ of the pie. How many pieces did he cut the pie into?
-

5. Tony's Pizzeria cuts their 8-inch pizzas into 4 equal slices. Martelli's Pizzeria cuts their 8-inch pizzas into 6 equal slices. Andre had a slice of pizza at both pizzerias. At which pizzeria did Andre eat more pizza? Explain.
-
-
-

6. A loaf of bread is cut into 8 equal slices. How much of the bread is left after 6 slices have been used for sandwiches?
-
-
-

Homework Practice**3MR1.1, 3NS3.1***Problem Solving Investigation***Use any strategy shown below to solve.**

- Look for a pattern
- Make a table
- Draw a picture
- Guess and check
- Work backward

- 1.** Marisela walks to and from school each day. It takes her 13 minutes to walk to school. How much time does Marisela spend walking to and from school each week?
-

- 2.** There are two numbers whose sum is 9 and the difference is five. What are the two numbers?
-

- 3.** Paul has 4 red crayons, 2 blue crayons, and 15 green crayons in a bag. Which crayon color is he likely to pick?
-

- 4.** A round trip ticket to Dallas costs \$325. A one-way ticket costs \$89. How much money can be saved by buying two one-way tickets instead of 1 round trip ticket?
-

Spiral Review**Draw a picture for each fraction. Shade the fraction. (Lesson 12-1)**

5. $\frac{3}{4}$

6. $\frac{1}{3}$

7. $\frac{2}{3}$

8. $\frac{4}{7}$

9. $\frac{3}{5}$

10. $\frac{7}{8}$

Name _____ Date _____

12-3**Homework Practice****3NS3.1***Find Equivalent Fractions***Draw an equivalent fraction for the following fractions.**

1. $\frac{3}{6}$

2. $\frac{2}{8}$

3. $\frac{3}{9}$

4. $\frac{2}{4}$

5. $\frac{5}{10}$

6. $\frac{6}{8}$

Write another fraction that names each fraction.

7. two-sixths _____

8. eight-tenths _____

9. four-eighths _____

10. six-ninths _____

Solve.

11. Fred offered three-fourths of the pizza or nine-twelfths of the pizza. Did he offer equal portions? _____

12. Alfonso needed help mowing the lawn. Danny offered to mow one-fourth and Hector offered to mow one-sixth. Who offered to mow $\frac{2}{8}$ of the lawn? _____**Spiral Review****Use any strategy to solve. (Lesson 12-2)**

13. Gregoria needs to be to school by 8:15. It takes her 20 minutes to walk and about 30 minutes to get ready in the morning. What time should Gregoria wake up each morning? _____

14. There are two numbers whose sum is 10 and the difference is 2. What is the number? _____

15. Augusto's school supplies totaled \$11.82. He gave the clerk three five-dollar bills. How much change did he receive? _____

16. Ramon has four brothers; two older and two younger. They are each two years apart. If Ramon is nine, how old is his oldest brother? _____

Problem-Solving Practice**3NS3.1***Find Equivalent Fractions***Solve.**

- 1.** Lenny colored $\frac{1}{2}$ of his picture.
What is another fraction that tells
the part of the picture he colored?

- 2.** A painter has painted $\frac{2}{8}$ of a ceiling.
What is an equivalent fraction for
this?

- 3.** Phillip has a box that is divided
into 4 equal sections. He fills 2 of
the sections with sand. Write two
equivalent fractions that tell how
much of the box is filled.

- 4.** A granola bar is cut into 3 equal
parts. Grace eats one part. Write
two equivalent fractions that tell
how much of the bar she ate.

- 5.** A circular tablecloth has 8 equal
sections. Two sections are white,
two are red, two are blue, and
two are black. What part of the
tablecloth is not white?

- What is another fraction you can
use to name this part?

- 6.** A spinner is divided into 6
equal sections. The sections are
numbered in order from 1 through
6. What part of the spinner has
even numbers on it?

- What is another fraction you can
use to name this part?

- 7.** Dennis finished half of his
homework. Christine finished
one third of her homework. Have
they completed the same amount
of work?

- 8.** Olivia drank half a cup of milk. Her
brother drank $\frac{5}{10}$ of a cup of milk.
Did they drink the same amount?

Name _____ Date _____

12-4**Homework Practice****3MR2.3, 3NS2.1***Problem Solving Investigation***Solve. Use the *draw a picture* strategy.**

- 1.** Lorena opened up her top drawer. She had twelve pairs of socks in the drawer. Three pairs were patterned, six were colored, and the rest were white. How many pairs of socks were white?
-
- 2.** Rafael was sorting his two dozen model cars. He had 8 red cars, 5 green vans, 6 pickup trucks, and the rest were one of a kind cars. How many one of a kind cars did Rafael have?
-
- 3.** Five cats are sitting on the fence. The black cat is second. The orange cat is next to the grey cat, and the striped cat is on the end. If the grey cat is fourth, where is the white cat?
-
- 5.** There are six pairs of shoes in the closet. There is one pair of sneakers, two pairs of flip flops, and one pair of dress shoes. The rest do not fit. How many pairs of shoes do not fit?
-
- 6.** Watson is 3 miles directly south of Panera. Caribou is 2 miles directly west of Watson. Wells is 3 miles directly north of Panera. Is that possible? Explain.
-

Spiral Review**Complete each number sentence to find equivalent fractions. (Lesson 12-3)**

7. $\frac{3}{4} = \frac{\square}{12}$

8. $\frac{1}{8} = \frac{\square}{16}$

9. $\frac{2}{5} = \frac{\square}{10}$

10. $\frac{5}{7} = \frac{\square}{21}$

11. $\frac{\square}{4} = \frac{\square}{6}$

12. $\frac{\square}{32} = \frac{2}{16}$

12-5**Homework Practice****3NS3.1***Compare Fractions*

Compare. Write $>$, $<$, or $=$. Use fraction strips, a number line, or a drawing if needed.

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

2. $\frac{3}{5}$ $\frac{2}{5}$

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

4. $\frac{1}{4}$ $\frac{1}{8}$

5. $\frac{2}{6}$ $\frac{1}{4}$

6. $\frac{3}{8}$ $\frac{1}{4}$

7. $\frac{2}{5}$ $\frac{7}{8}$

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

9. $\frac{2}{3}$ $\frac{3}{8}$

10. $\frac{1}{3}$ $\frac{2}{6}$

11. $\frac{3}{7}$ $\frac{2}{5}$

12. $\frac{3}{4}$ $\frac{5}{8}$

13. $\frac{1}{2}$ $\frac{1}{3}$

14. $\frac{1}{4}$ $\frac{2}{8}$

Solve.

15. Callie ate $\frac{3}{4}$ of a cup of dog food and Spirit ate $\frac{7}{8}$ of a cup of cat food. Who ate more? _____

16. Alonso finished $\frac{2}{3}$ of his homework before dinner and Ana finished $\frac{5}{6}$. Who has less homework to finish after dinner? _____

Spiral Review**Solve. Use the draw a picture strategy. (Lesson 12-4)**

17. Carolina walked west one block, south one block, east one block, and south one block. Did she make a complete square? _____

18. Six lunch boxes sat on the ledge. Half were plain, and the rest had cartoon characters on them. How many were plain? _____

19. There were twelve flowers in the vase. Three were red, four were orange, and the rest were yellow. How many yellow flowers were in the vase? _____

20. There were 15 houses on the block. Eight of them hung the flag out to fly. Did more than half the houses fly the flag? _____

Problem-Solving Practice**3NS3.1***Compare Fractions***Solve.**

- 1.** Pete and Sal share a bag of chips. Pete eats $\frac{1}{4}$ of the chips and Sal eats $\frac{3}{4}$ of the chips. Who eats more?
-

- 3.** It takes $\frac{3}{4}$ of an hour for Randy to walk from home to school. It takes $\frac{1}{2}$ hour for him to walk from home to the mall. Does Randy live closer to school or to the mall?
-

- 5.** In a recipe for fruit salad, Marta adds $\frac{1}{2}$ pound of apples, $\frac{3}{4}$ pound of grapes, and $\frac{1}{3}$ pound of cherries. Which fruit did she use the most?
-

- 7.** Two loaves of bread are the same size. One is cut into 8 pieces. The other is cut into 10 pieces. Which has the largest pieces?
-

- 2.** If $\frac{2}{5}$ of the class are boys and $\frac{3}{5}$ are girls, are there more boys or girls?
-

- 4.** Alice has finished $\frac{2}{3}$ of her homework. Sam has finished $\frac{1}{2}$ of his homework. Who has more homework left to do, Alice or Sam?
-

- 6.** Jack and Sandra each have \$100 in savings. Jack spent $\frac{1}{2}$ of his savings on a new coat and $\frac{3}{8}$ of the savings on a new pair of sneakers. Sandra spent $\frac{2}{5}$ of her savings on a new coat. Who spent more money on a coat?
-

- 8.** Which weighs more: $\frac{1}{3}$ lb of lead or $\frac{1}{2}$ lb of feathers?
-

Name _____ Date _____

12-6**Homework Practice****3NS3.2***Add Like Fractions***Add. Use fraction strips if needed.**

1. $\frac{1}{7} + \frac{5}{7}$ _____

2. $\frac{1}{5} + \frac{3}{5}$ _____

3. $\frac{1}{3} + \frac{1}{3}$ _____

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

5. $\frac{1}{4} + \frac{1}{4}$ _____

6. $\frac{2}{6} + \frac{2}{6}$ _____

7. $\frac{1}{8} + \frac{1}{8}$ _____

8. $\frac{3}{10} + \frac{2}{10}$ _____

9. $\frac{2}{8} + \frac{6}{8}$ _____

10. $\frac{4}{9} + \frac{3}{9}$ _____

11. $\frac{3}{4} + \frac{1}{4}$ _____

12. $\frac{7}{11} + \frac{3}{11}$ _____

Solve.

13. Dan walked $\frac{3}{10}$ of a mile then ran $\frac{5}{10}$ of a mile. How far did he go?
-

14. A recipe calls for $\frac{3}{4}$ of a cup white sugar and $\frac{1}{4}$ of a cup dark brown sugar. How much sugar will be used for the recipe?
-

15. Manuel has soccer practice 3 days a week and baseball practice 2 days a week. What fraction of the week does Manuel have practice?
-

Spiral Review**Compare. Write $<$, $>$, $=$. (Lesson 12-5)**

16. $\frac{2}{4}$ $\frac{1}{3}$

17. $\frac{3}{10}$ $\frac{3}{11}$

18. $\frac{4}{9}$ $\frac{3}{10}$

19. $\frac{3}{5}$ $\frac{3}{4}$

20. $\frac{1}{4}$ $\frac{3}{9}$

21. $\frac{1}{8}$ $\frac{1}{7}$

Problem-Solving Practice**3NS3.2***Add Like Fractions***Solve. Use fraction models if needed.**

- 1.** Kitty the cat ate $\frac{1}{6}$ of her food in the morning and $\frac{2}{6}$ in the afternoon. How much of her food did Kitty eat so far?
-
- 2.** A plant grew $\frac{1}{5}$ of an inch during the first week and $\frac{3}{5}$ of an inch the next week. How much did the plant grow in the two weeks?
-
- 3.** A model car storage box is divided into 8 equal sections. $\frac{3}{8}$ of the sections have model sports cars and $\frac{2}{8}$ have model trucks. The rest of the box is empty. What fraction of the box is filled so far?
-
- 4.** Of the dozen eggs in a box, $\frac{4}{12}$ have been colored pink and $\frac{3}{12}$ have been colored blue. The other eggs have not been colored. What fraction of the eggs have been colored?
-
- 5.** Ricky paints $\frac{1}{8}$ of his room on Monday, $\frac{3}{8}$ on Tuesday, and $\frac{2}{8}$ on Wednesday. What fraction of his room did Ricky paint by the end of the day on Wednesday?
-
- 6.** There are 12 apples in a bag. Everett eats $\frac{1}{6}$ of them and Lilly eats $\frac{2}{6}$ of them. What fraction of the apples have been eaten so far?
-

How many apples are left in the bag?

Name _____ Date _____

12-7**Homework Practice****3NS3.2***Subtract Like Fractions***Subtract. Use fraction strips if needed.**

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

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

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

4. $\frac{6}{7} - \frac{5}{7} =$ _____

5. $1 - \frac{1}{2} =$ _____

6. $\frac{6}{6} - \frac{4}{6} =$ _____

7. $\frac{8}{9} - \frac{4}{9} =$ _____

8. $\frac{7}{8} - \frac{5}{8} =$ _____

9. $\frac{8}{11} - \frac{4}{11} =$ _____

10. $\frac{9}{10} - \frac{4}{10} =$ _____

11. $1 - \frac{1}{4} =$ _____

12. $\frac{2}{3} - \frac{1}{3} =$ _____

Solve.

13. The bathtub is filled up $\frac{5}{6}$ of the way. After Tom gives the dog a bath, it is filled $\frac{3}{6}$ of the way. How much water did the dog splash out of the tub?
-

14. There were a dozen ice pops in the box. Juan ate $\frac{2}{12}$ of the box. How much was left?
-

15. The gallon of milk was $\frac{3}{4}$ full. Rosa drank $\frac{2}{4}$ of the gallon. How much was left?
-

Spiral Review**Add. Use fraction models if needed. (Lesson 12-6)**

16. $\frac{3}{12} + \frac{3}{12} =$ _____

17. $\frac{4}{10} + \frac{5}{10} =$ _____

18. $\frac{2}{8} + \frac{5}{8} =$ _____

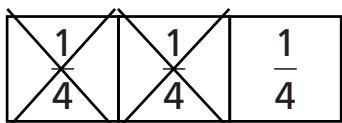
19. $\frac{1}{2} + \frac{1}{2} =$ _____

20. $\frac{5}{7} + \frac{1}{7} =$ _____

21. $\frac{1}{3} + \frac{2}{3} =$ _____

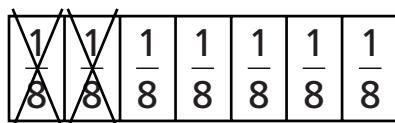
Problem-Solving Practice**3NS3.2***Subtract Like Fractions***Solve.**

1. Lorrie found $\frac{3}{4}$ of an apple pie in the refrigerator. She ate $\frac{2}{4}$ of the pie. What fraction of the pie was left?



_____ of the pie

2. There is $\frac{7}{8}$ of a quart of milk in a bottle. Brianne pours $\frac{2}{8}$ of a quart of milk into a glass. How much milk is left in the bottle?



3. A box of crayons fell on the floor. If $\frac{7}{12}$ of the crayons fell out, what fraction of the crayons are still in the box?

_____ are still in the box

5. Ben found $\frac{7}{10}$ of a pound of flour in the pantry. He needed to use $\frac{3}{10}$ of a pound of flour for bread that he was baking. His mom said that she needed $\frac{3}{10}$ of a pound of flour for dinner. After Ben and his mom use the flour, how much will be left in the bag?

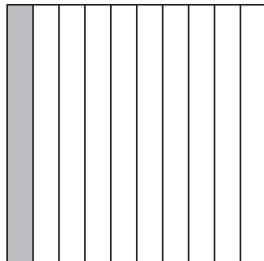
_____ of a pound

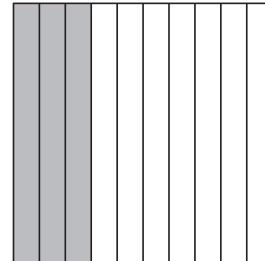
4. Alex ran $\frac{8}{12}$ of a mile. Rhea ran $\frac{5}{12}$ of a mile. How much farther did Alex run than Rhea?

_____ of a mile farther

6. Mea baked a peach pie and an apple pie. At the end of the day, $\frac{7}{8}$ of the peach pie was left and $\frac{3}{8}$ of the apple pie was left. How much more peach pie was left than apple pie?

_____ of a pie

13-1**Homework Practice****3NS3.4****Tenths****Write a fraction and a decimal for the part that is shaded.****1.**

2.

Write each fraction as a decimal.

3. $\frac{5}{10}$ _____

4. four tenths _____

5. $\frac{2}{10}$ _____

6. Benny ate $\frac{3}{10}$ of his snack. _____**7.** Han ate $\frac{1}{10}$ of his beans. _____**Write each decimal as a fraction.****8.** 0.6 _____**9.** 0.8 _____**10.** 0.1 _____**11.** Jamil had 0.5 of his sandwich left. _____**12.** Arnie has 0.2 of his drink. _____**Spiral Review****Subtract. Use fraction models if needed. (Lesson 12-7)**

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

14. $\frac{6}{7} - \frac{3}{7} =$ _____

Problem-Solving Practice

3NS3.4

Tenths

Solve.

1. Kosey was one of 10 players on his team. If there are 4 girls, write the number of girls in decimal form. Write the number of boys on the team in a fraction form.

3. You ate 0.8 of your french fries. How many do you have left? Write your answer as a fraction.

5. Your pizza has ten pieces altogether and you ate two pieces. How many pieces do you have left? Write a fraction.

7. Out of her 10 toes, your sister painted 0.5 of her toes red and 0.5 of them white. How many were red out of the 10?

2. There are 10 cats in the shelter. Three cats are black, 1 is white, and 6 are tabbies. How many cats are tabbies out of the ten? Write your answer in a decimal form.

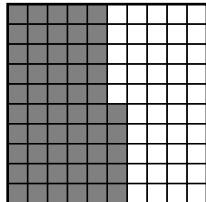
4. Akira has 6 toy cars. His friend, Masao has 4 toy cars. What is the fraction of toys that Akira had out of the 10 toys they had altogether?

6. If you saw 4 red birds and 6 blue birds, what part of the birds were red? Write your answer as a decimal.

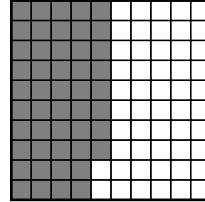
8. You have 4 pairs of sneakers and 6 pairs of other shoes, including 2 pairs of dress shoes. How many sneakers do you have out of all the shoes? Write the number of sneakers in decimal form and as a fraction.

13-2**Homework Practice****3NS3.4****Hundredths****Write a fraction and a decimal for the part that is shaded.**

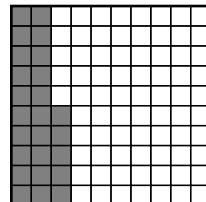
1.



2.



3.



Write each decimal as a fraction.

4. 0.64 _____

5. 0.17 _____

6. 0.48 _____

7. 0.35 _____

Spiral Review**Write each fraction as a decimal. (Lesson 13-1)**

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

9. $\frac{6}{10}$ _____

10. $\frac{2}{10}$ _____

11. $\frac{7}{10}$ _____

12. $\frac{4}{10}$ _____

Write each decimal as a fraction.

13. 0.1 _____

14. 0.3 _____

Problem-Solving Practice**3NS3.4***Hundredths***Solve.**

- 1.** Omar had a box of 100 pretzels. If he separated them out for snacks, and he put 10 in a bag, how many pretzels did he use if he made 5 bags? Write your answer as a fraction and a decimal.
-

- 2.** Order the numbers from least to greatest.

$$0.65 \quad \frac{4}{100} \quad \frac{89}{100} \quad 0.42$$

- 3.** Your puzzle has 100 pieces. You have only 47 pieces left, so what part have you put together out of 100 in a fraction form?
-

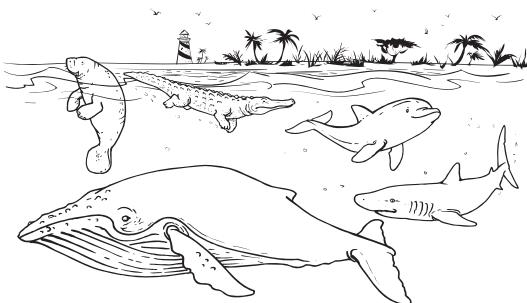
- 4.** In your novel, you are on page 34 out of 100. What is the decimal and fraction of the part you have left to read?
-

- 5.** Zina has eaten $\frac{75}{100}$ of her lunch. What part of the lunch does she have left?
-

- 6.** A zoo has 100 animals. If there are 40 reptiles, 25 mammals, and 35 birds, how many mammals are there out of the 100? Write your answer as a fraction.
-

- 7.** There are 100 toy men in a package. Your friend places 54 pieces on his side, how many pieces do you have?
-

- 8.** You have planted 94 rows out of your 100-row garden. How many rows do you have left to plant?
-

Homework Practice**3MR2.3, 3NS3.4***Problem-Solving Strategy***Solve. Use the *act it out* strategy.****1.**

A scuba diver saw many animals on his dive. If you can see 0.5 of the animals in the picture, how many more animals did the diver see? How many total animals did he see?

- 3.** Mai Lin has saved 7 coins. If she needs 10 coins to buy a toy, how many more coins does she need?
-

- 2.** A fisherman caught a total of 10 fish in one day. If he ate 0.3 of the fish for breakfast and 0.3 of the fish for lunch, how many fish did he have for dinner?
-

- 4.** Sunee has 10 stuffed animals. She lent 0.2 of them to one friend. How many of her stuffed animals did she not lend?
-

- 5.** Mini collects bugs. She has 48 bugs altogether. If she can fit 10 bugs in each container, how many containers will she need to house all of her collection?
-

Spiral Review**Write each fraction as a decimal. (Lesson 13-2)**

6. $\frac{6}{100}$ _____

7. $\frac{25}{100}$ _____

8. $\frac{97}{100}$ _____

Write each decimal as a fraction.

9. 0.80 _____

10. 0.01 _____

11. 0.08 _____

- 12.** If you eat 0.6 of the pretzels and you had 10 to start with, how many are leftover?
-

Name _____ Date _____

13-4**Homework Practice****3NS3.4***Decimals and Money***Write the part of a dollar each amount represents.****1.**

2.

3.

- 4.** Fatou has 5 dimes and 2 quarters. How much money does she have altogether?

Spiral Review (Lesson 13-2)**Write each fraction as a decimal.**

5. $\frac{7}{10}$ _____

6. $\frac{3}{10}$ _____

7. $\frac{92}{100}$ _____

Write each decimal as a fraction.

8. 0.4 _____

9. 0.6 _____

10. 0.65 _____

Problem-Solving Practice**3NS3.4***Decimals and Money***Solve.**

- 1.** A store sells a card for 89¢. What part of a dollar is 89¢?
-

- 2.** Clara has two dimes, a nickel, and four pennies in her pocket. What part of a dollar is the money she has in her pocket?
-

- 3.** Joan wants to buy a toy for a dollar. She has 1 quarter, two nickels, and a dime. What part of a dollar does she need to buy the toy?
-

- 4.** Mr. Brown bought a hammer for \$5.75. He gave the cashier \$6. What part of a dollar did Mr. Brown receive in change?
-

- 5.** Tom buys a book that costs \$4.37 and a bookmark that costs \$0.75. He gives the cashier a \$5-bill and a \$1-bill. What part of a dollar does he receive in change?
-

- 6.** Sue puts $\frac{1}{4}$ of every dollar she earns in a jar. If she earns \$8, how much money will she save?
-

- 7.** Judy spent $\frac{6}{10}$ of a dollar on a bottle of juice. She gave the cashier $\frac{3}{4}$ of a dollar? How much money did she receive in change?
-

- 8.** Carlos spent $\frac{1}{10}$ of a dollar on a pencil, $\frac{15}{100}$ of a dollar on a pen, and $\frac{1}{4}$ of a dollar on notebook. He gave the cashier \$1. How much change did he receive?
-

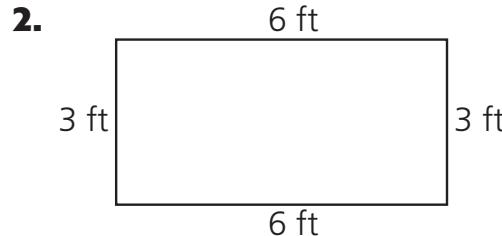
Name _____ Date _____

13-5**Homework Practice****3MR1.2, 3NS3.3***Problem-Solving Investigation***Use any strategy shown below to solve. Tell what strategy you used.****Problem-Solving Strategies**

- Guess and Check
- Draw a picture
- Work a simpler problem
- Act it out
- Make an organized list

- 1.** There are 15 children on the playground at recess. If 3 are on the swing set and 4 are on the monkey bars, how many are left to play ball?
-

- 3.** Danielle has five coins. The total of her coins is \$0.51 cents. If she has 1 penny, 1 nickel, and 1 quarter, how many dimes does she have?
-



You are having a fence built around your pool. How many feet of the fence will be needed?

- 4.** Louis spent 0.6 of his piggy bank on a gift. How much of his bank does he have left?
-

Spiral Review**Write each fraction as a decimal. (Lesson 13-2)**

5. $\frac{3}{10}$ _____

6. $\frac{2}{10}$ _____

7. $\frac{65}{100}$ _____

Write each decimal as a fraction.

8. 0.8 _____

9. 0.9 _____

10. 0.49 _____

Name _____ Date _____

14-1**Homework Practice****3NS2.4, 3MR2.2****Multiply Multiples of 10, 100, and 1,000****Multiply. Use basic facts and patterns.**

1. $2 \times 3 =$ _____

$2 \times 30 =$ _____

$2 \times 300 =$ _____

$2 \times 3,000 =$ _____

2. $7 \times 5 =$ _____

$7 \times 50 =$ _____

$7 \times 500 =$ _____

$7 \times 5,000 =$ _____

3. $5 \times 8 =$ _____

$5 \times 80 =$ _____

$5 \times 800 =$ _____

$5 \times 8,000 =$ _____

4. $2 \times 7 =$ _____

$2 \times 70 =$ _____

$2 \times 700 =$ _____

$2 \times 7,000 =$ _____

5. $6 \times 3 =$ _____

$6 \times 30 =$ _____

$6 \times 300 =$ _____

$6 \times 3,000 =$ _____

6. $7 \times 6 =$ _____

$7 \times 60 =$ _____

$7 \times 600 =$ _____

$7 \times 6,000 =$ _____

7. $3 \times 80 =$ _____

8. $5 \times 4,000 =$ _____

9. $400 \times 8 =$ _____

10. $20 \times 9 =$ _____

11. $5,000 \times 6 =$ _____

12. $30 \times 4 =$ _____

13. $700 \times 6 =$ _____

14. $7 \times 900 =$ _____

Solve.

15. There were 4 rows of desks in Cecilia's classroom and 10 in each row.
How many desks were there? _____

16. On Valentine's Day the florist delivered 100 vases of flowers. Each vase held half of a dozen flowers. (Remember: half of a dozen = 6) How many flowers were delivered that day? _____

Spiral Review**Write the part of a dollar each amount represents. (Lesson 13–4)**

17. 50¢ _____

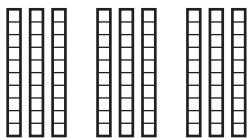
18. 25¢ _____

19. 20¢ _____

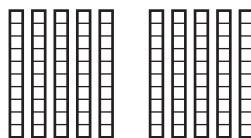
20. 75¢ _____

Problem-Solving Practice**3NS2.4, 3MR2.2***Multiply Multiples of 10, 100, and 1,000***Solve.**

- 1.** Nathan earns \$30 a week at his part-time job. How much does he earn in 3 weeks?



- 2.** The fruit store has 2 crates of apples left to sell. There are 50 apples in each crate. How many apples are left in all?



_____ apples

- 3.** Shelley wants to make 800 copies of the third-grade class newsletter. The newsletter is 6 pages long. How many sheets of paper will she need to make the copies?

_____ sheets

- 4.** Some computers send information at the speed of 200 megabytes every second. How many megabytes could be sent in 8 seconds?

_____ megabytes

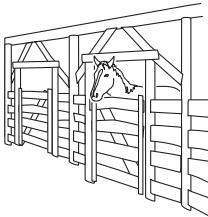
- 5.** Benson School has 3 third-grade classrooms. There are 3 computers in each of the classrooms. Each computer costs \$2,000. How much did all of the third-grade computers cost?

- 6.** A carpenter made 90 new shelves. The materials for each bookshelf cost \$9. He sells the shelves for a total of \$1,800. How much profit did he make?

Name _____ Date _____

14-2**Homework Practice***Problem-Solving Strategy***3NS2.1, 3MR2.3****Solve. Use logical reasoning.**

- 1.** There were three horses in four stalls. Lightning was in the first stall and Pinto was in the fourth. Ginger was next to Lightning. Which stall was empty? _____



- 2.** Ben was hungry for a good snack, but wasn't sure what to choose from the fruit basket. The bananas, apples, pears, and kiwis looked delicious. He was walking out the door, so he didn't want to deal with a peel, and the pears and kiwis weren't ripe. What did he pick? _____
- 3.** Katie was the oldest of five children. She had one younger sister and three younger brothers. Brendan was in the middle, Tommy was older than Brendan, and Brendan was older than Lily, who was older than John. Where did John fall in the family? _____

- 4.** What is the largest three digit number you can write without using a 9 in the hundreds place or ones place, or an 8 in the tens place? _____

- 5.** Five cats were in the backyard. Oscar belonged to Robin. Gizmo belonged to Jason. Cosmo and Burt didn't belong to Kirsten, and Speck didn't belong to Pat. What are the names of Pat's two cats? _____

- 6.** Carmen, Manuel, and Diego argued about who was first in line. Diego had been line leader last week, and the teacher said "ladies first." Who will be first in line? _____

- 7.** Marta made three sandwiches; turkey on a roll, ham on white, and tuna on rye. Jen doesn't like rolls and Ana doesn't care for deli meats. What is Marta left with for lunch? _____

Spiral Review**Multiply. (Lesson 14-1)**

8. $80 \times 6 =$ _____

9. $6 \times 5,000 =$ _____

10. $7 \times 70 =$ _____

11. $400 \times 2 =$ _____

12. $20 \times 2 =$ _____

13. $300 \times 9 =$ _____

Name _____ Date _____

14-3**Homework Practice****3NS2.4, 3MR2.1***Estimate Products***Estimate. Round to the nearest ten.**

1. $72 \times 4 =$ _____ 2. $15 \times 6 =$ _____ 3. $45 \times 3 =$ _____ 4. $82 \times 8 =$ _____

5. $34 \times 6 =$ _____ 6. $27 \times 5 =$ _____ 7. $66 \times 7 =$ _____ 8. $87 \times 3 =$ _____

Estimate. Round to the nearest hundred.

9. $370 \times 9 =$ _____ 10. $252 \times 5 =$ _____ 11. $416 \times 5 =$ _____

12. $509 \times 6 =$ _____ 13. $626 \times 3 =$ _____ 14. $849 \times 4 =$ _____

15. $639 \times 8 =$ _____ 16. $771 \times 9 =$ _____ 17. $235 \times 4 =$ _____

Solve.

18. Sonia carved a pumpkin and found 843 seeds inside. If she carved 5 more pumpkins, about how many seeds should she find? _____

19. The washer takes about 53 minutes to complete a load of laundry. If Francisco washes 8 loads of laundry a week, about how long is the washer running? _____

Spiral Review**Solve. Use logical reasoning. (Lesson 14-2)**20. Four girls discussed their favorite colors. Olivia likes the color of oranges and pumpkins. Marisol likes the hues of grass and tree leaves. Patricia likes shades similar to apples and cherries. Cristina likes the color of the sky when the sun is shining. What color did each girl like?
_____21. There were three gifts in three boxes. The toy was not in the metal box. The homemade pretzels were not in a cardboard box. The stuffed animal was not in a wooden or cardboard box. What gifts were in each of the boxes?

Problem-Solving Practice

3NS2.4

Estimate Products

Solve.

1. Each third-grade class has 25 students. There are three classes. About how many third-grade students are there in all? Round the answer to the nearest ten.

3. Chad has 6 different packages of napkins. Each package has 44 napkins. About how many napkins does he have in all?

5. Habib made 3 sandwiches. Each sandwich has 478 Calories. About how many total number of Calories are in the three sandwiches?

2. Adam earned 38 points on each of 4 quizzes. Does he have more than 100 total points? Explain.

4. Dana's family wants to buy 4 puzzles that cost \$17 each. They have \$50 to spend. Do they have enough money for the 4 puzzles? Explain.

6. Erica has \$5 to buy new pencils. She wants 1 purple pencil, 2 green pencils, 1 red pencil, and 5 blue pencils. Each pencil costs 49¢. Does she have enough money to buy all of the pencils she wants? Explain.

Name _____ Date _____

14-4**Homework Practice****3NS2.4***Multiply by a One-Digit Number***Multiply.**

1. 44
 $\times 2$

2. 23
 $\times 2$

3. 14
 $\times 2$

4. 23
 $\times 3$

5. $11 \times 8 =$ _____ **6.** $30 \times 3 =$ _____ **7.** $41 \times 2 =$ _____ **8.** $21 \times 4 =$ _____

9. $33 \times 2 =$ _____ **10.** $13 \times 2 =$ _____ **11.** $20 \times 3 =$ _____ **12.** $11 \times 7 =$ _____

Solve.

- 13.** There is a shelf in the living room that has 4 shelves. There are 12 books on each shelf. How many books are there on the four shelves? _____

- 15.** Susana collected 2 cents at the recycling plant for each of her 42 cans. How much money did she collect altogether? _____

- 14.** Jorge is collecting baseball cards. He has 22 stacks of 4 cards. How many cards does he have altogether? _____

- 16.** Enrique can read a page in 3 minutes. How long will it take him to read 13 pages? _____

Spiral Review**Estimate. Round to the nearest ten or hundred. (Lesson 14-3)**

17. $85 \times 6 =$ _____ **18.** $703 \times 4 =$ _____ **19.** $315 \times 4 =$ _____

20. $895 \times 3 =$ _____ **21.** $56 \times 7 =$ _____ **22.** $49 \times 5 =$ _____

14-4

Name _____

Date _____

Problem-Solving Practice

3NS2.4

Multiply by a One-Digit Number

Solve.

1. The straight part of Jane's train track has 2 tracks. Each track is 13 inches. How many inches long is the straight part of the train track?

inches

3. The border around a bulletin board is 35 inches long. There are 3 pieces of border paper left. Each piece is 11 inches long. Is there enough border paper to go around the bulletin board border? Explain.
-

2. Tom owns 3 sets of trains. Each set has 12 train cars. How many train cars does Tom have in all?

train cars

5. Sam can make 11 beaded necklaces in an hour. Sue can make 12 beaded necklaces in an hour. In one week Sam made necklaces for 6 hours and Sue made them for 3 hours. Who makes more bracelets in the week? Explain.
-

4. There are 3 groups of students. Each group has 8 sheets of paper. How many sheets of paper are there in all?

sheets of paper

6. Each box has 50 of the same colored beads. Every bracelet has 4 blue beads and 3 red beads. If Jackie makes 12 bracelets, how many beads will be left in the box of blue beads?

blue beads

How many will be left in the box of red beads?

red beads

Homework Practice**3MR1.1, 3NS2.4***Problem-Solving Investigation***Solve. Use any strategy shown below.**

- Use the four-step plan
- Solve a simpler problem
- Make an organized list
- Draw a picture
- Act it out
- Use logical reasoning

- 1.** It's Monday night. Irene has to type 16 pages between now and Friday morning. How many pages will she need to type each night to meet her deadline?

- 2.** Ernesto has 8 dimes, 2 nickels and 10 pennies. What is the fewest number of coins he could carry in his pocket that would equal the same amount of money?

- 3.** Four friends were sitting around a table playing cards. Jude sat across from Pat, and Kurt was to the left of Jude. Where was Sean?

- 4.** Alicia is trying to decide how much lemonade to make. If two cups equals a pint, and 2 pints equals a quart, how many cups are in 4 quarts?

- 5.** Bernice is designing a diamond pattern for her new patchwork quilt. How many right triangles can she make out of a square of fabric?

- 6.** Mariano was offering Jackie a deal. He was offering her five-eighths of a 9-inch pizza for four-ninths of a 9-inch cake. If Jackie accepts, who is getting more to eat?

Spiral Review**Multiply. (Lesson 14-4)**

7. $22 \times 3 =$ _____

8. $44 \times 2 =$ _____

9. $23 \times 2 =$ _____

10. $23 \times 3 =$ _____

11. $12 \times 4 =$ _____

12. $24 \times 2 =$ _____

Name _____ Date _____

14-6**Homework Practice****3NS2.4, 3MR2.1***Multiply Two-Digit Numbers***Multiply.**

- 1.** $24 \times 6 =$ _____ **2.** $15 \times 4 =$ _____ **3.** $56 \times 2 =$ _____ **4.** $19 \times 5 =$ _____
5. $36 \times 3 =$ _____ **6.** $82 \times 4 =$ _____ **7.** $61 \times 6 =$ _____ **8.** $50 \times 5 =$ _____

Solve.

- 9.** Elena was reading a book with 9 chapters. Each chapter had 21 pages. How many pages did the book have? _____
- 11.** There were 9 thirsty players in line. If each received a 20-ounce serving of lemonade, how many ounces of lemonade would be served to the players?

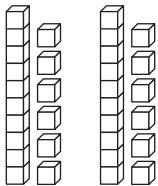
- 10.** Laura walked her dog 6 blocks a day. How many blocks did she walk in 21 days? _____
- 12.** There were 7 ice cubes in each glass. How many ice cubes were needed for 18 glasses? _____

Spiral Review**Choose the best strategy to solve. (Lesson 14-5)**

- 13.** If one pair of jeans cost \$9, how much would ten pairs of jeans cost? _____
- 14.** Five students were in line. Emily was next to Isabel. Isabel was next to Brittany. Susana was last. Where was Ernesto? _____
- 15.** Adam wanted to buy 10 newspapers at 8¢ apiece. How much money did he spend? _____

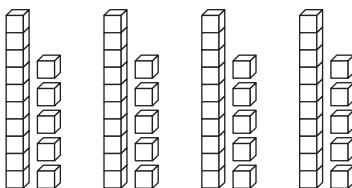
Problem-Solving Practice**3NS2.4, 3MR2.1***Multiply Two-Digit Numbers***Use models to solve.**

- 1.** Vin works 16 days each month.
How many days does he work in
2 months?



_____ days

- 2.** Gina earns \$15 per hour. How
much does she earn for 4 hours?



Solve.

- 3.** Each lesson in a science book has 34 pages. There are 8 lessons in the book. If Ed reads all of the lessons, how many pages will he have read?

_____ pages

- 4.** There are 25 white paper clips and 75 silver paper clips in each box. How many silver paper clips are in 9 boxes?

_____ silver paper clips

- 5.** The school store sells a box of folders for \$48 each. An office supply store has a special sale of 6 boxes of folders for \$300. Which store sells 6 boxes of folders for less money? Explain.

- 6.** Will has three large boxes of candles. There are 53 candles in each large box. Omar has 7 small boxes of candles. There are 24 candles in each small box. Who has more candles? Explain.

Name _____ Date _____

14-7**Homework Practice****3NS2.4, 3MR2.1***Multiply Greater Numbers***Multiply.**

1. $152 \times 3 =$ _____

2. $427 \times 4 =$ _____

3. $127 \times 5 =$ _____

4. $1,724 \times 3 =$ _____

5. $536 \times 2 =$ _____

6. $214 \times 3 =$ _____

7. $521 \times 4 =$ _____

8. $392 \times 6 =$ _____

9. $2,386 \times 6 =$ _____

10. $3,074 \times 7 =$ _____

11. $812 \times 8 =$ _____

12. $75 \times 7 =$ _____

Solve.

13. A round-trip plane ticket to Ft. Worth, Texas, is \$267. How much would 5 tickets cost? _____

14. If there are 128 ounces in a gallon of milk, how many ounces are in 9 gallons? _____

15. Mrs. Hernandez took her class on a field trip to the zoo. Admission to the zoo was \$5. There were 25 students in the class. How much did it cost for the class to enter the zoo? _____

Spiral Review**Multiply. (Lesson 4-6)**

16. $32 \times 5 =$ _____

17. $94 \times 3 =$ _____

18. $57 \times 8 =$ _____

19. $27 \times 6 =$ _____

20. $81 \times 4 =$ _____

21. $23 \times 4 =$ _____

Problem-Solving Practice**3NS2.4, 3MR2.1***Multiply Greater Numbers***Solve.**

1. Pocket Electronics store has 2 floors of products. Each floor has 115 CD players. How many CD players are in the store?

_____ CD players

3. It takes 494 gallons of paint to paint the outside of the school building. The building is painted every year. How many gallons of paint are used after 5 years of painting the building?

_____ gallons

5. You must climb 1,060 steps to reach the second floor of the Eiffel Tower in Paris, France. Andre walked up and down three times. How many steps did he walk up and down altogether?

_____ steps

2. Each rack in the electronics store has 161 DVDs. There are 3 racks. How many DVDs are in the store?

_____ DVDs

4. Seven new classrooms are being added to the Lumberton Elementary School. The floor in each classroom takes 1,276 tiles. How many tiles are needed to cover all of the floors of the new classrooms?

_____ tiles

6. Neil is an airline pilot. On each of his first 4 trips, he flew 3,456 miles. On his last trip he flew 8,569 miles. How many miles did he fly in all 5 trips?

_____ miles

Name _____ Date _____

14-8**Homework Practice****3NS3.3***Multiply Money***Multiply.**

1. $\$3.53 \times 4 =$ _____

2. $\$2.75 \times 6 =$ _____

3. $\$1.89 \times 7 =$ _____

4. $\$0.99 \times 8 =$ _____

5. $\$6.34 \times 3 =$ _____

6. $\$4.28 \times 5 =$ _____

7. $\$5.77 \times 2 =$ _____

8. $\$7.09 \times 6 =$ _____

9. $8 \times \$4.89 =$ _____

Use the table to answer Exercises 10-12.

Burt's Car Wash	
Wash only	\$5.25
Wash and Dry	\$5.75
Wash and Wax	\$6.00
Wash, Wax, Dry	\$6.75

11. How much will it cost for three cars to have a wash, wax, and dry?
- _____

13. Carla ordered 6 orders of fries. They cost \$1.29 a piece. How much was the total bill? _____

10. If 9 cars go through Burt's car wash and have a wash only, how much will it cost?
- _____

12. Antonio has his car washed and waxed at Burt's every Saturday. How much does it cost him after 7 weeks? _____

14. Elena bought three new pairs of socks for \$3.89 a pair. How much did she spend?
- _____

Spiral Review**Multiply. (Lesson 14-7)**

15. $214 \times 7 =$ _____

16. $1,305 \times 6 =$ _____

17. $284 \times 8 =$ _____

18. $346 \times 4 =$ _____

19. $2,197 \times 5 =$ _____

20. $3,721 \times 3 =$ _____

Problem-Solving Practice**3NS3.3***Multiply Money***Solve.**

1. Lee was buying pillows for her outdoor furniture. She bought eight pillows at \$19.98 each to place on the outdoor sofa, and 4 pillows at \$15.99 each to scatter on the outdoor chairs. How much money did Lee spend on new pillows? _____
2. Cathy was eager to add books to her collection. She became interested in a series that had 6 books in a set. Each book cost \$6.99. How much would the set of 6 cost Cathy? _____
3. Each Saturday, Trevor mows lawns. The lawns are small, so he has time to mow 7 of them. He charges \$25 for each lawn. How much does Trevor earn each Saturday? _____
4. Armando's class was selling magazine subscriptions to help buy new equipment for the science room. Armando sold 10 subscriptions at \$9.99 apiece. How much did Armando contribute to the cause? _____
5. Ava and her family went to the baseball game. Each ticket cost \$8.50. If Ava went with her mother, father, and three siblings, how much money did they spend on tickets? _____
6. The scout troop was selling evergreen wreaths for the holidays. Each wreath cost \$29.95. If they sold 4 wreaths, how much money did the troop make? _____
7. The school's marching band was getting new uniforms. Each uniform cost \$25.75. How much would 10 new uniforms cost? _____
8. Antonio was flying back to Boston to visit his grandmother. His mom and dad were sending him with his sister. If the tickets were \$389 round trip, how much would it cost for them to fly? _____

Name _____ Date _____

15-1**Homework Practice****3NS2.5***Divide Multiples of 10, 100, and 1,000***Use basic facts and patterns of zeros to find each quotient.**

1. $8 \div 2 =$ _____

$80 \div 2 =$ _____

$800 \div 2 =$ _____

$8,000 \div 2 =$ _____

2. $63 \div 7 =$ _____

$630 \div 7 =$ _____

$6,300 \div 7 =$ _____

$63,000 \div 7 =$ _____

3. $27 \div 9 =$ _____

$270 \div 9 =$ _____

$2,700 \div 9 =$ _____

$27,000 \div 9 =$ _____

4. $10 \div 5 =$ _____

$100 \div 5 =$ _____

$1,000 \div 5 =$ _____

$10,000 \div 5 =$ _____

Divide.

5. $3,600 \div 4 =$ _____ 6. $700 \div 7 =$ _____ 7. $56,000 \div 8 =$ _____

8. The Espinoza triplets want to put together a puzzle that has 1,500 pieces. If each one puts together the same number of pieces, how many pieces does each triplet have to put together?
-

9. A farmer has 24,000 acres of land. He wants to divide it evenly among 8 different crops. How much land does each crop get?

Spiral Review**Multiply. (Lesson 14–8)**

10. $7 \times \$3.67$ _____

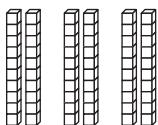
11. $9 \times \$9.50$ _____

12. $\$2.19 \times 4$ _____

13. $\$8.25 \times 4$ _____

Problem-Solving Practice**3NS2.5***Divide Multiples of 10, 100, and 1,000***Solve.**

- 1.** After working for 3 weeks, Pat earned \$600.



How much did he earn each week?

_____ each week

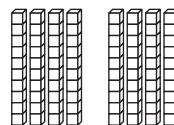
- 3.** The computer printer has 240 sheets of paper in it. Each student prints out an 8-page book report. Now the printer is empty. How many students printed out their reports?

_____ students

- 5.** Theo spent a total of \$560 in 8 weeks. He spent the same amount each week. He spent \$30 per week on food, and he paid bills with the rest of the money. How much did he spend each week on bills?

_____ each week

- 2.** The office supply store has 20 boxes of folders left that are on sale. There are 800 folders in all.



How many folders are in each box?

_____ folders

- 4.** Mr. Wilson will give out 120 textbooks to the class. Each student will get 6 textbooks. How many students are in the class?

_____ students

- 6.** It took 2,400 seconds for Megan to finish her science and math homework. Each assignment took the same amount of time to complete. Was this more or less than 1 hour for each assignment? Explain.

Name _____ Date _____

15-2**Homework Practice****3NS2.5 3MR2.1***Estimate Quotients***Estimate by rounding.**

1. $562 \div 8$ _____

2. $3,638 \div 6$ _____

3. $454 \div 5$ _____

4. $2,437 \div 3$ _____

5. $7,240 \div 9$ _____

6. $823 \div 4$ _____

7. $632 \div 7$ _____

8. $8,456 \div 2$ _____

9. The Anderson family is taking a cross-country road trip. They covered 2,420 miles in 8 days. If they wanted their next trip to be 2 days faster, about how many miles a day would they have to drive?
-

Spiral Review**Use basic facts and patterns of zeros to find each quotient.
(Lesson 15-1)**

10. $18 \div 3 =$ _____

11. $16 \div 2 =$ _____

12. $36 \div 4 =$ _____

$180 \div 3 =$ _____

$160 \div 2 =$ _____

$360 \div 4 =$ _____

$1,800 \div 3 =$ _____

$1,600 \div 2 =$ _____

$3,600 \div 4 =$ _____

Divide. Use patterns.

13. $8,000 \div 4 =$ _____ 14. $250 \div 5 =$ _____ 15. $45,000 \div 9 =$ _____

16. Five juice machines can hold 500 cans. How many cans of juice can each machine hold?
-

Problem-Solving Practice**3NS2.5 3MR2.1***Estimate Quotients***Estimate to solve.**

- 1.** Amy feeds the 4 class hamsters the same amount of food each day. She has 22 ounces of food. About how many ounces of food does each hamster get per day?

about _____ ounces

- 2.** In art class, Cory is making paper chains. It takes him 6 minutes to make each chain. There are about 28 minutes left in class. About how many more chains can he make?

about _____ more chains

- 3.** Lorrie is emptying her sister's wading pool with a pump. The pool holds 142 gallons. Each minute the pump removes 7 gallons of water. About how many minutes will it take to empty the pool?

about _____ minutes

- 4.** The third graders have raised \$282 for their class trip to the Wildride Amusement Park. Admission to the park is \$9. There are 30 students in the third grade. Do they have enough money for admission for all of them? Explain your answer.

- 5.** Nina and her three friends are running a relay race. The total distance is 3,210 meters. Each person runs the same distance. About how many meters does each friend run?

about _____ meters

- 6.** The total distance around the Kennington Village Square is 3,928 feet. About how long is one side of the village square?

about _____ feet

Name _____ Date _____

15-3**Homework Practice****3NS2.5, 3NS2.3***Two-Digit Quotients***Divide. Use models if needed. Check your answer.**

1. $96 \div 2$ _____

2. $72 \div 8$ _____

3. $85 \div 5$ _____

Complete each table.

4.

Rule: Divide by 5.	
Input	Output
50	■
■	13
70	■
75	15

5.

Rule: Divide by 3.	
Input	Output
■	22
72	24
78	■
84	■

6.

Rule: Divide by 6.	
Input	Output
78	■
84	■
90	15
■	16

Divide. Use models if needed. Check your answer.

7. Yuki swam 93 feet across the pool in 10 seconds. How many yards is that?
-

8. Frank has 76 quarters in his pocket. How many dollars is that?
-

Spiral Review**Estimate by rounding. (Lesson 15-2)**

9. $198 \div 4$

10. $564 \div 7$

11. $8,056 \div 2$

19. To raise money for new uniforms, the student marching band must sell 688 concert tickets in a week. About how many tickets do they have to sell per day?
-

Problem-Solving Practice*Two-Digit Quotients***Estimate first. Then divide.**

- 1.** At the Royce School there are 48 cars in the teachers' parking lot. The same number of cars are parked in each of 3 rows. How many cars are parked in each row?

_____ cars

- 3.** Clare works at a laundromat. She will wash 72 pairs of pants. The washing machine can wash 6 pairs of pants for each load of laundry. How many loads of laundry will she need to do to wash all of the pants?

_____ loads

- 5.** Gina has 42 pennies in her bank and 23 pennies in her wallet. She wants to exchange the pennies for nickels. How many nickels will she get?

_____ nickels

- 2.** The art teacher has a collection of 56 paintbrushes. He puts the same number of brushes into 4 different sections of his art box. How many brushes are in each section?

_____ brushes

- 4.** For a class project, Marty has 72 pieces of pasta. He is pasting the pasta into 6 equal rows on poster board. How many pieces will be in each row?

_____ pieces

- 6.** There are 19 boys and 17 girls in the third grade. Each day, 3 students will give an oral report. How many days will students be giving oral reports?

_____ days

Name _____ Date _____

15-4**Homework Practice***Problem-Solving Strategy***3MR1.2 3NS2.1****Solve. Use the work backward strategy.**

- Olivia is packing for vacation. Her large suitcase will fit 36 items of clothing and her small suitcase will fit 18 items of clothing. If she wants to bring 60 items of clothing, how many will she have to leave behind?

- Gavin is saving up to buy a new bicycle. The one he wants costs \$125. His mother is giving him \$50, but he will have to earn the rest by mowing lawns for \$5 each. How many lawns will he have to mow before he can buy the bicycle?

- It's 2 P.M. and Marvin needs to finish reading a 150-page book before returning it to the library at 5 P.M. He has already read 90 pages of the book. How many pages an hour does he have to read to return the book on time?

- Francesca is a flower girl in a wedding. She has to drop rose petals on the ground with every step she takes down the aisle. It will take her 9 steps to make it down the aisle and her basket holds 360 rose petals, about how many petals can she drop each time?

Spiral Review**Divide. Use models if needed. (Lesson 15-3)**

5. $87 \div 3 =$ _____

6. $72 \div 6 =$ _____

7. $86 \div 2 =$ _____

Complete each table.

8.

Rule: Divide by 4	
Input	Output
■	21
88	■
92	23
96	■

9.

Rule: Divide by 5	
Input	Output
65	■
75	■
85	17
95	■

10.

Rule: Divide by 7	
Input	Output
■	8
70	■
84	■
98	14

Name _____ Date _____

15–5**Homework Practice****3NS2.5, 3NS2.3***Three-Digit Quotients***Divide. Check your answers.**

1. $984 \div 2 =$ _____

2. $625 \div 5 =$ _____

3. $791 \div 7 =$ _____

4. $558 \div 9 =$ _____

5. $873 \div 3 =$ _____

6. $336 \div 4 =$ _____

Use the table for Exercises 7–10.

Vitamins at the Drugstore		
Item	Number of Bottles in a Box	Total Number of Tablets in a Box
Vitamin A	6	810 tablets
Vitamin C	8	912 chewable tablets
calcium supplements	5	625 chewable tablets
multi-vitamins	9	945 tablets

7. How many Vitamin C tablets are in a bottle? _____

8. How many Vitamin A tablets are in a bottle? _____

9. How many multi-vitamins are in a bottle? _____

10. How many calcium supplements are in a bottle? _____

Spiral Review**Solve. Use the *work backward* strategy. (Lesson 15–4)**

11. David's dog needs a bath. If David uses a 5-gallon bucket to halfway fill a 60-gallon tub, how many buckets of water does he need to wash the dog?

12. Winnie is helping her uncle build a deck. They have 20 pieces of 12-foot lumber. If they need 2 screws for every 3 feet of lumber, how many screws do they need?

Problem-Solving Practice**3NS2.5, 3NS2.3***Three-Digit Quotients***Solve.**

- 1.** Megan divides 147 carrots equally into plastic snack bags. If she puts 7 carrots in each bag, how many plastic snack bags does she need?

_____ snack bags

- 3.** Elizabeth is making large candles. She has 228 pounds of wax. Each candle will use 6 pounds of wax. How many candles can Elizabeth make?

_____ candles

- 5.** Larry plays on the school basketball team. He scored a total of 134 points in 5 games, and he scored the same number of points in each of the first 4 games. In the last game he scored 30 points. How many more points did he score in the last game than in any of the other 4 games?

_____ more points

- 2.** Mrs. Ruiz has 126 baseball cards. She gives an equal amount to each of her 3 children. How many does each child get?

_____ baseball cards

- 4.** Myla is the coach of the Pearson Sack Race Club. The club has 156 sacks and 7 members. After practice, each member takes the same number of sacks home. Myla takes home any sacks that are left over. If each member takes home as many sacks as possible, how many does Myla take home?

_____ sacks

- 6.** Rick plans to make 6 large birdhouses and 2 small ones. He will use a total of 148 nails. Each small birdhouse uses 8 nails. If each large birdhouse uses the same number of nails, how many nails will be used for each large birdhouse?

Homework Practice**3MR1.1, 3NS2.5***Problem-Solving Investigation***Use any strategy shown below to solve. Tell what strategy you used.**

- Make an organized list
- Draw a picture
- Act it out
- Use logical reasoning
- Work backward

1. School starts at 8:45 A.M. Nick needs 30 minutes to get dressed and eat breakfast. It then takes him 35 minutes to get to school. What time does he have to wake up to be on time for school?

2. Melanie planted chives in her herb garden. After 2 weeks, they grew to 4 inches. The next day, they measured 5 and a half inches. The day after that, they measured 7 inches. If they continue growing at this rate, how tall were the chives the day after that?

3. Pepe needs to put lightbulbs on the second floor of his house. Two of the bedrooms have ceiling lamps that need 3 bulbs each. The other bedroom has 2 lamps that each need 1 bulb. The 4 bulbs above the bathroom mirror also need to be replaced. How many bulbs does Pepe need in all?

Spiral Review**Divide. Check your answers. (Lesson 15–5)**

4. $795 \div 3 =$ _____

5. $666 \div 9 =$ _____

6. $672 \div 7 =$ _____

7. $408 \div 8 =$ _____

8. $222 \div 6 =$ _____

9. $425 \div 5 =$ _____

10. $272 \div 4 =$ _____

11. $477 \div 9 =$ _____

Name _____ Date _____

15-7**Homework Practice****3NS3.3, 3NS2.7***Divide Money***Divide. Check your answer.**

1. $\$6.86 \div 7$ _____

2. $\$2.88 \div 9$ _____

3. $\$7.48 \div 4$ _____

4. $\$1.32 \div 6$ _____

5. $\$9.36 \div 3$ _____

6. $\$4.95 \div 5$ _____

Find the unit cost.

7. 8 jump ropes for \$6.96 _____

8. 5 tropical fish for \$7.95 _____

9. 6 organic apples for \$7.44 _____

10. 4 beach balls for \$9.68 _____

Use the hardware store's price list for Exercises 11–13.

Hardware Item	Cost
Rope	3 yards for \$6.27
Chain	5 yards for \$5.75
Twine	9 yards for \$2.70

11. Which is cheapest per yard? _____

12. Jackie bought 10 yards of one kind of item and it cost \$11.50. What did she buy? _____

13. How many yards of rope did Hans buy if he spent \$18.81? _____

Spiral Review**Solve. Tell what strategy you used. (Lesson 15–6)**

14. Payton visited a modern artist's exhibit. The first painting was a circle divided into 2 sections. The second was a triangle divided into 4 sections, and the third was a square divided into 5 sections. What do you think the fourth painting looked like?

15. A rowboat can carry 2 adults and 3 children across the lake. How many rowboats are needed to take 8 adults and 12 children across the lake?

Problem-Solving Practice

3NS3.3, 3NS2.7

Divide Money

Solve.

1. Nate bought 2 hats for \$9.20. How much did each one cost?

2. How much does one bottle of water and one banana cost if 6 bottles of water cost \$6.12 and 5 bananas cost \$3.50?

3. Danielle and Maria have a total of \$4.50. How much will they each get if the money is split evenly?

4. Matt's dad spent \$6.50 on two games. How much did the games each cost if they both cost the same?

5. Raffle tickets are \$2 each. Allison spent \$10 on them. How many raffle tickets did she buy?

6. Sam paid \$7.40 for 4 coffee mugs. How much did each one cost?

7. James cuts grass in his neighborhood. He made \$6.58 in two days. If he earned the same amount each day, how much did he earn each day?

8. Amy, Sarah, and Lindsay have a total of \$6.24. How much will each receive if they share the money equally?
