Homework Practice
Algebra: Number Patterns

Identify the pattern. Then find the missing numbers.

1. 3, _____, 9, _____, 15
2. 111, 115, _____, 123, 127
3. 50, 70, _____, 110, _____
4. 48, 46, _____, 42, _____
5. 120, 100, _____, 60, _____
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
Complete each number sentence.

8. 5 + 4 = _____  3 + 9 = _____  7 + 3 = _____
9. 8 + 4 = _____  6 + 6 = _____  5 + 7 = _____
10. 9 – 4 = _____  7 – 6 = _____  7 – 4 = _____
11. 8 – 6 = _____  9 – 5 = _____  8 – 3 = _____
12. Kayla has 24 beads to give to 6 friends. She will give the same number to each friend. How many beads will each friend get?
   ________________
Homework Practice
Problem-Solving Skill: The Four Step Plan

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 sunglasses for $6. If she gives the cashier two $5-bills, 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)

1. 8, 10, _____, 14, _____, _____
2. 76, _____, 72, _____, _____
3. 55, _____, 65, _____, _____
4. 108, 105, _____, 99, _____
5. 560, 660, _____, _____, 960
6. 15, _____, 45, 60, _____
7. 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?

8. Fran likes to buy flowers each week. The first week she buys white flowers, then she buys red flowers, and then yellow flowers. If the pattern continues, what color will she buy in the fifth week?
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 ________

**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?
Write the place of each underlined digit. Then write its value.

1. 4,559
2. 55,303
3. 23,901
4. 48,351
5. 67,842
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

Identify the pattern. Then find the missing numbers. (Lesson 1-3)

12. 65, 60, _____, _____, 45, 40
13. 54, _____, 60, _____, 66, _____
14. 33, 43, _____, _____, 73, _____
15. 543, 539, _____, 531, _____

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?
Homework Practice

Problem-Solving Investigation: The Four-Step Plan

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 weighs 13 pounds. David’s dog weighs 12 pounds more than Jason’s dog. How much does David’s dog weigh?

Spiral Review

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

4. 5,609

5. 47,898

6. 34,332
1–6 Homework Practice

Compare Numbers

Write >, <, or = for each.

1. $751 \bigcirc 715
2. 322 \bigcirc 332
3. 121 \bigcirc 211
4. 435 \bigcirc 543
5. 673 \bigcirc 376
6. 788 \bigcirc 877
7. 808 \bigcirc 880
8. $918 \bigcirc 819
9. 727 \bigcirc 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, the temperature at noon was 101°F. On Thursday, the temperature at noon was 110°F. Which day was cooler, Wednesday or Thursday?

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?
Order the numbers from greatest to the least.

1. 5,668; 5,886; 8,585

2. $5.66; $6.55; $6.56

3. 6,432; 4,634; 4,346

4. 7,701; 7,101; 7,001

Order the numbers from least to the 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

10. 654 ☐ 645

11. $5.39 ☐ $5.39

12. 6,443 ☐ 6,533

13. 2,998 ☐ 2,889

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?
Name ____________________________ Date ________________

Homework Practice
Round to the Nearest ten and Hundred

Round to the nearest ten.
1. 56 ______  2. 4,588 ______  3. 6,444 ______
4. 648 ______  5. 506 ______  6. 3,409 ______

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 the 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 the 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 ____________________________
Homework Practice
Round to the Nearest Thousand

Round to the nearest thousand.
1. 4,569 __________  3. 1,284 __________  5. 8,877 __________
2. 3,569 __________  4. 8,440 __________  6. 12,899 __________

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 car that cost $23,556. To the nearest thousand, how much did the car cost?

__________________________________________________________________________

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

9. 54 __________  11. 323 __________  13. 578 __________
10. 143 __________  12. 1,093 __________  14. 1,566 __________

Round to the nearest hundred.

15. 2,349 __________  18. 3,441 __________  21. 3,219 __________
16. 677 __________  19. 5,788 __________  22. 8,892 __________
17. 155 __________  20. 4,975 __________  23. 6,864 __________
Determine the value of bills and coins.

1. 

2. 

3. 

4. 

5. 

6. 4,801 _________

7. 6,592 _________

8. 3,192 _________

9. 5,038 _________
Homework Practice

Algebra: Addition Properties

Find each sum. Identify the property shown.

1. \(5 + 4 = \)  2. \(46 + 0 = \)
   \(4 + 5 = \)  \(\)  

3. \((7 + 9) + 3 = \)  4. \(1 + (9 + 5) = \)
   \((7 + 3) + 9 = \)  \(1 + 9 + 5 = \)

Find each missing number. Identify the property shown.

5. \((0 + 7) + 3 = \square + (7 + 3)\)  6. \(20 + 40 = 40 + \square\)

Spiral Review

Determine the value of the coins. (Lesson 1–10)

1. \(\)  \(\)  \(\)  \(\)  \(\)

2. \(\)  \(\)  \(\)  \(\)  \(\)

3. \(\)  \(\)  \(\)  \(\)  \(\)

4. Charlie has 55¢. Which coins could he have?
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 Mrs. Hill’s class, 23 students entered; and in Miss Lee’s class, 9 students entered. How many total students entered the contest? Are there enough students?

2. The Coopertown Museum of Art has 45 paintings, 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, 8 shelves of picture books, and 21 shelves of history books. About 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. \((5 + 4) + 2 = \) \(5 + (2 + 4) = \)
Homework Practice

Estimate Sums

Estimate each sum using rounding.

1. 504 + 86
2. 15 + 29
3. 710 + 780
4. 428 + 376

Estimate each sum using compatible numbers.

5. 646 + 289
6. 380 + 445
7. 102 + 399

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. There are three baskets that each contain 4 eggs. How many eggs are there in all?

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?
Add. Check for reasonableness.

1. \(32 + 6\) 
2. \(44 + 13\) 
3. \(19 + 49\)

4. \(21 + 34\) 
5. \(25 + 3\) 
6. \(46 + 10\)

Find the missing digit.

7. \(87 + \square = 94\)
8. \(4 \square + 13 = 62\)
9. \(\square 2 + 38 = 50\)
10. \(69 + 17 = \square 6\)

Solve.

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

Spiral Review

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

12. \(19 + 48\) 
13. \(15 + 58\)
14. \(43 + 46\) 
15. \(33 + 56\)

Estimate each sum using compatible numbers.

16. \(527 + 124\) 
17. \(892 + 244\) 
18. \(79 + 7\)
Add. Use estimation to check for reasonableness.

1. 41¢ + 18¢ = ______ 2. $12 + $79 = ______
3. $80 + $76 = ______ 4. $39 + $50 = ______
5. $68 + $8 = ______ 6. $21 + $33 = ______
7. $13 + $78 = ______ 8. $34 + $17 = ______
9. $46 + $89 = ______ 10. $75 + $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. 46 + 47 = ______

ALGEBRA Find each missing digit.

17. 18 + □ 3 = 31 18. □ 9 + 24 = 63

19. 5 □ + 35 = 90 20. 31 + 44 = □ 5
Use the four-step plan, estimation, or an exact answer 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 3 weeks?

3. At a dance recital, ballet dancers performed for 19 minutes, modern dancers performed for 24 minutes, and hip-hop dancers performed for 12 minutes. About how long was the recital?

4. Al visits his grandparents every summer. Al’s mother drives him 20 miles to the bus station. Al travels 475 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. $46¢ + 65¢ + 81¢$  
6. $6¢ + 12¢ + 77¢$

7. $55 + $13 + $38$
8. $28 + $41 + $48$
Find each sum. Use models if needed.

1. $350 + $465 = _____
2. 95 + 41 = _____
3. 29¢ + 66¢ = _____
4. $340 + $189 = _____
5. $445 + $308 = _____
6. 28 + 69 = _____
7. 653 + 284 = _____
8. 27¢ + 56¢ = _____
9. 178 + 99 = _____
10. $132 + $594 = _____
11. $602 + $139 = _____
12. 86 + 96 = _____

Spiral Review

Use the four-step plan, estimation, or an exact answer to solve each problem. (Lesson 2–6)

13. Kevin’s family bought a pizza for dinner that cost $8. They also bought 3 sodas: each soda cost $1. How much did all of these items cost?

14. A canary costs $89, and a birdcage costs $129. About how much do the bird and cage cost together?

15. A truck is delivering fresh vegetables to the Dixville Grocery Store. Starting from Bealstown, it goes 127 miles north to Bentley, and then goes 139 miles west to Dixville. How many miles is the entire trip to Dixville?
Add Greater Numbers

Find each sum. Use estimation to check for reasonableness.

1. $4,091 + 238 = \underline{}$
2. $5,045 + \underline{}$
3. $356 + 1,209 = \underline{}$
4. $14,463 + \underline{}$
5. $3,912 + \underline{}$
6. $2,088 + 346 = \underline{}$
7. $7,416 + \underline{}$
8. $4,502 + \underline{}$
9. $3,866 + 727 = \underline{}$
10. Courtney is having a tea party. She bought a teapot for $25, a tea sampler for $6, and cookies for $6. 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, craft glue and beads for $10, and a pack of colored paper for $9. How much money did she spend?

Spiral Review

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

12. $708 + 221 = \underline{}$
13. $578 + 333 = \underline{}$
14. $981 + 602 = \underline{}$
15. $132 + 78 = \underline{}$
Subtract. Use models if needed. Check your answer.

1. $25 - 3$
2. $37 - 5$
3. $49 - 8$
4. $52 - 6$

5. $67 - 8$
6. $83 - 9$
7. $39 - 17$
8. $45 - 21$

9. $64 - 32$
10. $56 - 38$
11. $75 - 26$
12. $91 - 33$

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. Use models if needed. (Lesson 2-8)

27. $445 + 338 = _______
28. $599 + $276 = _______

29. $762 + 354 = _______
30. $390 + $190 = _______

31. $444 + 888 = _______
32. $622 + $911 = _______

33. $232 + 330 = _______
34. $303 + $399 = _______
Homework Practice

Estimate Differences

Estimate each difference using rounding.

1. \[57 - 22\]
2. \[177 - 63\]
3. \[450 - 127\]

Estimate each difference using compatible numbers.

4. \[68 - 22\]
5. \[487 - 219\]
6. \[215 - 92\]
7. \[223 - 145\]
8. \[835 - 462\]
9. \[742\text{¢} - 358\text{¢}\]

10. Colin wants to buy a CD for $12 and a book for $4. About how much money does he need?

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. \[32 - 1\]
13. \[34 - 12\]
14. \[43 - 8\]
15. \[48 - 35\]
16. \[58 - 9\]
17. \[50 - 27\]
18. \[62 - 8\]
19. \[64 - 39\]

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?
Subtract. Use models if needed. Check your answer.

1. 38¢  
   - 3¢  

2. 84¢  
   - 53¢  

3. $95  
   - $42  

4. 17¢  
   - 9¢  

5. 60¢  
   - 45¢  

6. 89¢  
   - 54¢  

7. $67  
   - $50  

8. $83  
   - $22  

9. 83¢ – 21¢  
10. 72¢ – 35¢  
11. $45 – $25  

12. $68 – $20  
13. $32 – $16  
14. $50 – $28  

15. $43 – $12  
16. $96 – $75  
17. $80 – $68  

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

19. Courtney’s sister has $27 to buy dinner for her and her sister. Courtney’s dinner is $8. Her sister’s dinner is $9. How much money does Courtney’s sister have left?  

Spiral Review

Estimate each difference using rounding. (Lesson 3–2)

20. 28 – 17  
21. 257 – 81  
22. $4.77 – $2.21  

Estimate each difference using compatible numbers.

23. 53 – 24  
24. 346 – 78  
25. $8.48 – $0.97  

26. 465 – 242  
27. 525 – 377  
28. $619 – $337  

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. 71¢
   – 54¢

5. $357
   – $ 24

6. $629
   – $540

7. $724
   – $432

8. 64 – 33 ______

9. 77 – 51 ______

10. 52¢ – 37¢ ______

11. $81 – $35 ______

12. $721 – $336 ______

13. $131 – $65 ______
Subtract. Check your answer.

1. 381 – 165 
2. 441 – 57 
3. $850 – $243 
4. $319 – $175 
5. 224 – 115 
6. 356 – 178 
7. 802 – 334 
8. $467 – $182 
9. $521 – $375 
10. $633 – $245 

ALGEBRA Find each missing digit.

11. 5 1 
   − 2 6 5 
   □49 

12. 3 8 5 
    − □ 2 □ 
    6 2 

13. 4 □ 9 
    − 1 1 2 
    □ 9 7 

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.
Homework Practice
Problem-Solving Investigation: Choose a Strategy

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

• Estimate or an exact answer • Reasonable answer • Work backward

1. Mark is buying apples. They are 99¢ per pound. He wants to buy 3 pounds. About 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. \[ 4 2 \square \]
   \[ - 1 5 6 \]
   \[ \square 6 5 \]

5. \[ 2 2 4 \]
   \[ - \square 6 \square \]
   \[ 5 8 \]

6. \[ 5 \square 6 \]
   \[ - 3 2 1 \]
   \[ \square 2 5 \]
Subtract.

1. 1,816  
   - 429

2. 3,659  
   - 2,485

3. $4,718  
   - $1,962

4. 7,613  
   - 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. There are 5,280 feet in a mile. Chloe has already walked 1,753 feet. How much farther does she need to walk to complete a mile?

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. And 3 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?
Subtract. Check your answer.

1. 100  
   - 27  
   ______

2. 301  
   - 172  
   ______

3. 500  
   - 165  
   ______

4. 702  
   - 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 has $100. She buys a CD player for $87.  
    How much money does she have now? ______

Spiral Review

Subtract. (Lesson 3–7)

13. 1,426
    -389

14. 2,255
    -1,343

15. $3,678
    -$1,836

16. $5,491
    -$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? ______
Select addition or subtraction and 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 in all?

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

The table shows the favorite sports of third graders at Sam’s school.

<table>
<thead>
<tr>
<th>Favorite Sports</th>
<th>Votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lacrosse</td>
<td>28</td>
</tr>
<tr>
<td>Soccer</td>
<td>85</td>
</tr>
<tr>
<td>Football</td>
<td>35</td>
</tr>
<tr>
<td>Volleyball</td>
<td>21</td>
</tr>
<tr>
<td>Basketball</td>
<td>87</td>
</tr>
</tbody>
</table>

3. What is the sum of the votes?

4. How many more students voted for basketball and volleyball than for lacrosse and football?

Spiral Review

Estimate. Then subtract. Check for reasonableness. (Lesson 3-8)

5. 200 \[ \underline{\ - \ 43 } \]
6. 302 \[ \underline{\ - \ 166 } \]
7. 400 \[ \underline{\ - \ 248 } \]
8. 601 \[ \underline{\ - \ 526 } \]
Write a multiplication sentence for each array. Then multiply.

1. \[ \triangle \triangle \triangle \quad \square \triangle \triangle \]

2. \[ \text{Geese} \]

3. \[ \bullet \bullet \bullet \]

4. \[ \text{Sticks} \]

Use the Commutative Property of Multiplication to find the missing number.

5. \[ 3 \times 6 = 18 \quad \square \times 3 = 18 \]

6. \[ 7 \times 4 = 28 \quad 4 \times \square = 28 \]

7. \[ 8 \times 6 = 48 \quad 6 \times 8 = \square \]

8. \[ 5 \times 2 = 10 \quad \square \times 5 = 10 \]

Select addition or subtraction to solve.

9. Wally saw 14 monkeys at the zoo. He saw 13 more birds than monkeys. How many birds did he see? \[ \text{_______________} \]

10. There are 20 students in Mrs. Kim’s class. Only 6 students wear glasses. How many students do not wear glasses? \[ \text{_______________} \]
Homework Practice

Multiply by 2

Multiply.

1. \[ \square \square \square \square \square + \square \square = 10 \]

Model an array or draw a picture to multiply.

3. \( 5 \times 2 = 10 \)

4. \( 2 \times 3 = 6 \)

5. \( 4 \times 2 = 8 \)

6. \( 7 \times 2 = 14 \)

7. \( 2 \times 9 = 18 \)

8. \( 2 \times 8 = 16 \)

9. \( 2 \times 2 = 4 \)

10. \( 6 \times 2 = 12 \)

Write a multiplication sentence for each situation. Then solve.

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

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

Spiral Review

Use the Commutative Property of Multiplication to find each missing number. (Lesson 4–1)

13. \( 4 \times 7 = 28 \)

14. \( 6 \times 2 = 12 \)

15. \( 5 \times 3 = 15 \)

\[ 7 \times \square = 28 \]

\[ \square \times 6 = 12 \]

\[ \square \times 5 = 15 \]
Use models or draw a picture to multiply.

1. \[ 4 \times 2 = \] 
2. \[ 6 \times 4 = \] 
3. \[ 3 \times 4 = \] 
4. \[ 4 \times 7 = \] 
5. \[ 8 \times 4 = \]

6. \[ 4 \times 5 = \] 
7. \[ 4 \times 9 = \] 
8. \[ 7 \times 4 = \] 
9. \[ 4 \times 8 = \] 
10. \[ 9 \times 4 = \]

11. \[ 2 \times 4 = \] 
12. \[ 4 \times 4 = \] 
13. \[ 6 \times 4 = \]

14. \[ 4 \times 0 = \] 
15. \[ 4 \times 10 = \] 
16. \[ 4 \times 1 = \]

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?

Use models or draw a picture to multiply. (Lesson 4–2)

20. \[ 9 \times 2 = \] 
21. \[ 2 \times 4 = \] 
22. \[ 2 \times 10 = \]

23. \[ 2 \times 8 = \] 
24. \[ 6 \times 2 = \] 
25. \[ 7 \times 2 = \]
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 10 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 pencils for his class. There are 29 students in his class. One pack contains 12 pencils. Each pack costs $2. How much change will he get back from two $5–bills?


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?

Multiply. (Lesson 4–3)

6. \(2 \times 4 = \) 
7. \(6 \times 4 = \) 
8. \(9 \times 4 = \) 
9. \(8 \times 4 = \) 
10. \(4 \times 5 = \) 
11. \(4 \times 7 = \)
Use counters to model or draw a picture to multiply.

1. \(5 \times 2\)  
2. \(5 \times 9\)  
3. \(5 \times 4\)  
4. \(5 \times 7\)  
5. \(8 \times 5\)

6. \(7 \times 5\)  
7. \(5 \times 8\)  
8. \(5 \times 1\)  
9. \(5 \times 6\)  
10. \(9 \times 5\)

11. \(6 \times 5\)  
12. \(3 \times 5\)  
13. \(5 \times 5\)

14. Katie paid for her new bike with twelve $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. If Andrea has 4 five-dollar bills, does she have enough to buy 1 pair? 

**ALGEBRA** Find each missing number.

17. \(8 \times \square = 40\) 
18. \(5 \times \square = 25\) 
19. \(7 \times \square = 35\) 
20. \(5 \times \square = 45\)

**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 4–4)

21. A group of children is going to the movies. The price of admission is $5 each. If there are 6 children and 2 adults, and 4 seats in each car, how many cars will they take? 

22. If Grant wants to adopt a cat and he brings 4 ten-dollar bills, will he have enough money? 

Name _________________________ Date ________________

4–5 Homework Practice

Multiply by 5
Homework Practice

Multiply by 10

Use patterns or models to multiply.

1. 10 × 2
2. 10 × 9
3. 10 × 4
4. 10 × 8
5. 10 × 5

6. 10 × 3
7. 7 × 10
8. 10 × 1
9. 4 × 10
10. 10 × 6

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 4–5)

19. 5 × 4 =
20. 7 × 5 =
21. 5 × 5 =

22. 5 × 6 =
23. 8 × 5 =
24. 5 × 3 =

25. 9 × 5 =
26. 6 × 5 =
27. 5 × 8 =

28. 5 × 7 =
29. 2 × 5 =
30. 5 × 9 =
Homework Practice

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 at 4 P.M. The price of a ticket is $8 for an adult and $4 for a child. Movie tickets for shows before 6 P.M. are half price. 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 4–6)

5. 10 × 4 = _____ 6. 8 × 10 = _____ 7. 10 × 7 = _____
8. 9 × 10 = _____ 9. 10 × 6 = _____ 10. 5 × 10 = _____
Multiply.

1. \[10 \times 0\]
2. \[5 \times 1\]
3. \[0 \times 3\]
4. \[4 \times 1\]
5. \[1 \times 8\]
6. \[1 \times 6\]

7. \[2 \times 1\]
8. \[8 \times 0\]
9. \[9 \times 1\]
10. \[1 \times 5\]
11. \[7 \times 1\]
12. \[0 \times 9\]

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?

Solve. (Lesson 4–7)

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

18. Alfonso picked 14 oranges and twice as many lemons. How many apples did he pick?
Use models or draw a picture to multiply.

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

2. $3 \times 5 = \underline{\hspace{1cm}}$

3. $5 \times 3 = \underline{\hspace{1cm}}$

4. $9 \times 3 = \underline{\hspace{1cm}}$

5. $4 \times 3 = \underline{\hspace{1cm}}$

6. $10 \times 3 = \underline{\hspace{1cm}}$

7. $8 \times 3 = \underline{\hspace{1cm}}$

8. $3 \times 7 = \underline{\hspace{1cm}}$

9. $6 \times 3 = \underline{\hspace{1cm}}$

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

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?

Multiply.

13. $0 \times 3 = \underline{\hspace{1cm}}$

14. $1 \times 5 = \underline{\hspace{1cm}}$

15. $1 \times 6 = \underline{\hspace{1cm}}$

16. $0 \times 9 = \underline{\hspace{1cm}}$

17. $0 \times 1 = \underline{\hspace{1cm}}$

18. $2 \times 0 = \underline{\hspace{1cm}}$

19. $8 \times 1 = \underline{\hspace{1cm}}$

20. $1 \times 0 = \underline{\hspace{1cm}}$

21. $1 \times 4 = \underline{\hspace{1cm}}$

22. $2 \times 1 = \underline{\hspace{1cm}}$

23. $5 \times 0 = \underline{\hspace{1cm}}$

24. $0 \times 1 = \underline{\hspace{1cm}}$
Multiply.

1. $6 \times 4 = \underline{24}$
2. $3 \times 6 = \underline{18}$
3. $6 \times 8 = \underline{48}$
4. $4 \times 6 = \underline{24}$
5. $6 \times 0 = \underline{0}$
6. $6 \times 1 = \underline{6}$
7. $6 \times 9 = \underline{54}$
8. $9 \times 6 = \underline{54}$
9. $5 \times 6 = \underline{30}$
10. $7 \times 6 = \underline{42}$

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 each. How many legs in all?
   
   
Spiral Review

Multiply. (Lesson 5–1)

13. $3 \times 9 = \underline{27}$
14. $3 \times 7 = \underline{21}$
15. $6 \times 3 = \underline{18}$
16. $5 \times 3 = \underline{15}$
17. $4 \times 3 = \underline{12}$
18. $8 \times 3 = \underline{24}$
19. $0 \times 3 = \underline{0}$
20. $7 \times 3 = \underline{21}$
21. $3 \times 2 = \underline{6}$
22. $3 \times 4 = \underline{12}$
23. $3 \times 8 = \underline{24}$
24. $9 \times 3 = \underline{27}$
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, $4. The third, $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 walking 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 × 6 = ____
5. 4 × 6 = ____
6. 6 × 6 = ____
7. 7 × 6 = ____
8. 6 × 8 = ____
9. 6 × 5 = ____
Use models to 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. \(7 \times 9 = \) \_

15. \(8 \times 7 = \) \_

16. \(7 \times \_
\quad = 35\)

17. \(
\_
\quad \times 7 = 14\)

18. \(\_
\quad \times 7 = 49\)

Solve. Use the look for pattern strategy. (Lesson 5–3)

19. Fred collected sports cards. He got the same number of new cards each week and sold the same number of ones that he had. Week 1, he had 10 cards and sold 2. Week 2, he got 10 more and sold 2, giving him 16. Week 3, he got 10 more and sold 2, giving him 24. How many cards did he have by the end of Week 4?

20. After collecting more cards, Fred decided to put his cards in order. He numbered all the cards related to baseball players 1. He numbered all the football cards 2. He numbered all the basketball cards 3. He has a total of 50 cards, with an equal number of number 2 and number 3 cards. He has 20 number 1 cards. How many number 2 cards does he have?
5–5 Homework Practice

Multiply by 8

Use models or known facts to multiply.

1. \(8 \times 3 = \) \_
   2. \(5 \times 8 = \) \_
   3. \(6 \times 8 = \) \_
   4. \(7 \times 8 = \) \_
   5. \(8 \times 8 = \) \_
   6. \(9 \times 8 = \) \_
   7. \(4 \times 8 = \) \_
   8. \(8 \times 6 = \) \_
   9. \(8 \times 10 = \) \_
   10. \(8 \times 1 = \) \_
   11. \(8 \times 0 = \) \_
   12. \(8 \times 5 = \) \_
   13. \(8 \times 4 = \) \_
   14. \(8 \times 9 = \) \_
   15. \(8 \times \_
   = 64\)
   16. \(7 \times \_
   = 56\)
   17. \(\_
   \times 8 = 24\)
   18. \(\_
   \times 8 = 64\)

Spiral Review

Use models or known facts to 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. \(7 \times 6 = \) \_
   27. \(7 \times 10 = \) \_
   28. \(7 \times 1 = \) \_

Solve.

29. 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?
Multiplication Practice

Use models or patterns to multiply.

1. $9 \times 3 = \square$
2. $5 \times 9 = \square$
3. $6 \times 9 = \square$
4. $7 \times 9 = \square$
5. $9 \times 8 = \square$
6. $9 \times 9 = \square$
7. $4 \times 9 = \square$
8. $9 \times 6 = \square$
9. $9 \times 10 = \square$
10. $9 \times 1 = \square$
11. $9 \times 0 = \square$
12. $9 \times 5 = \square$
13. $9 \times 4 = \square$
14. $8 \times 9 = \square$
15. $9 \times 8 = \square$
16. $9 \times \square = 36$
17. $\square \times 9 = 45$
18. $\square \times 6 = 54$

Spiral Review

Use models or patterns to multiply. (Lesson 5–5)

19. $8 \times 5 = \square$
20. $8 \times 7 = \square$
21. $10 \times 8 = \square$
22. $7 \times 8 = \square$
23. $7 \times 8 = \square$
24. $9 \times 8 = \square$
25. $2 \times 8 = \square$
26. $8 \times 6 = \square$
27. $8 \times 10 = \square$
28. $8 \times 1 = \square$

Algebra Complete the table.

29.

<table>
<thead>
<tr>
<th>Factor</th>
<th>4</th>
<th>9</th>
<th>9</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product</td>
<td></td>
<td>45</td>
<td>63</td>
<td>81</td>
</tr>
</tbody>
</table>

30. Look back over the page. Circle all of the answers that are odd numbers.
Homework Practice

Problem-Solving Investigation: Choose a Strategy

Solve. Use any strategy below.

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

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 $10. Becky has $5 more than Mandy. Pat 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. \( 9 \times 9 = \) _____
13. \( 9 \times \) _____ = 18
14. _____ \( \times 8 = 72 \)
Homework Practice

Multiply by 11 and 12

Use models or patterns to multiply.

1. \(8 \times 11 = \) ______
2. \(5 \times 11 = \) ______
3. \(6 \times 12 = \) ______
4. \(8 \times 12 = \) ______
5. \(12 \times 11 = \) ______
6. \(2 \times 11 = \) ______
7. \(11 \times 4 = \) ______
8. \(12 \times 6 = \) ______
9. \(11 \times 3 = \) ______
10. \(11 \times 11 = \) ______
11. \(12 \times 10 = \) ______
12. \(11 \times 8 = \) ______
13. \(12 \times 12 = \) ______
14. \(3 \times 12 = \) ______
15. \(4 \times 12 = \) ______
16. \(7 \times 11 = \) ______
17. \(11 \times 9 = \) ______
18. \(9 \times 12 = \) ______
19. \(5 \times 12 = \) ______
20. \(11 \times 6 = \) ______
21. \(12 \times 2 = \) ______
22. \(12 \times 8 = \) ______
23. \(11 \times 10 = \) ______
24. \(12 \times 7 = \) ______

ALGEBRA Find each missing number.

25. \(6 \times 11 = \) ______
26. \(3 \times \square = 36\)
27. \(\square \times 10 = 120\)
28. \(12 \times \square = 84\)
29. \(\square \times 7 = 84\)
30. \(11 \times \square = 77\)

Solve. (Lesson 5-7)

31. 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?
Find each product.

1. \(1 \times 2 \times 3 = \) 
2. \(5 \times 2 \times 4 = \) 
3. \(8 \times 5 \times 2 = \) 
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. \(4 \times 3 \times 2 = \) 
9. \(2 \times \_ \times 2 = 4\) 
10. \(3 \times \_ \times 1 = 12\) 
11. \(\_ \times 4 \times 2 = 56\) 
12. \(\_ \times 2 \times 3 = 30\) 
13. \(4 \times 5 \times 6 = \) 
14. \(\_ \times 2 \times 7 = 86\) 
15. \(5 \times 5 \times \_ = 25\) 
16. \(3 \times \_ \times 3 = 27\)

Spiral Review

Use models or patterns to multiply. (Lesson 5–8)

17. \(12 \times 3 = \) 
18. \(4 \times 12 = \) 
19. \(11 \times 5 = \) 
20. \(12 \times 6 = \) 
21. \(3 \times 11 = \) 
22. \(6 \times 11 = \) 
23. \(12 \times 7 = \) 
24. \(12 \times 5 = \) 
25. \(11 \times 4 = \) 
26. \(8 \times 12 = \)
Homework Practice
Relate Division to Subtraction

Divide. Use a division sentence to show the answer.

1. There are 24 cans of soda with 6 cans in each group. How many groups of cans of soda in all? _____

2. 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? _____

Find each missing number.

3. \(10 \div _____ = 5\)  
4. \(12 \div _____ = 3\)
5. \(16 \div _____ = 4\)  
6. \(36 \div _____ = 6\)

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

7. \(12 \div 2 = _____\)  
8. \(8 \div 4 = _____\)
9. \(9 \div 3 = _____\)  
10. \(15 \div 5 = _____\)

Solve.

11. \(8 \times 2 \times 0 = _____\)  
12. \(3 \times 4 \times 1 = _____\)
13. \(2 \times 5 \times 2 = _____\)  
14. \(2 \times _____ \times 2 = 16\)

15. 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?
6–2 Homework Practice

Relate Division to Multiplication

Draw an array for each number sentence. Then write a related division sentence.

1. $5 \times 4 = 20$ _____________________
2. $4 \times 8 = 32$ _____________________
3. $5 \times 6 = 30$ _____________________
4. $6 \times 7 = 42$ _____________________
5. $8 \times 5 = 40$ _____________________
6. $8 \times 7 = 56$ _____________________

Write the fact family for each set of numbers.

7. 5, 10, 50 __________________________
8. 6, 7, 42 ____________________________
9. 3, 4, 12 ____________________________

Spiral Review

Divide. Use a division sentence to show the answer. (Lesson 6–1)

10. There are 22 boys who want to play baseball. There will be 2 teams. How many boys will play on each team? ______

ALGEBRA Find each missing number.

11. $8 \div \square = 2$  
12. $21 \div \square = 3$  
13. $42 \div \square = 7$

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

14. $10 \div 2 = _____$  
15. $9 \div 3 = _____$  
16. $12 \div 4 = _____$
Solve. Use the \textit{choose an operation} strategy.

Name the operation you choose.

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?

\textbf{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

9. 6, 8, 48
 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. \(18 \div 2 = \) 

Use repeated subtraction on a number line to divide.

10. \(2 \longdiv{12} \) 
11. \(2 \longdiv{18} \) 
12. \(2 \longdiv{20} \) 

Divide. Write a related multiplication fact.

13. \(16 \div 2 = \) 
14. \(6 \div 2 = \) 
15. \(20 \div 2 = \) 
16. \(12 \div 2 = \) 

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

17. Liz has a fish tank with a total of 22 fish. She has an equal number of solid goldfish and spotted goldfish. How many does she have of each kind of fish?

   ____________________________

18. 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?

   ____________________________
Homework Practice

Divide by 5

Use models or related facts to 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. \(45 \div 5 = \) _____

ALGEBRA Complete each table.

10.  

\[
\begin{array}{|c|c|}
\hline
\text{Input} & \text{Output} \\
\hline
3 & 15 \\
6 & 20 \\
9 & 30 \\
\hline
\end{array}
\]

Rule: \(\times 5\)

11.  

\[
\begin{array}{|c|c|}
\hline
\text{Input} & \text{Output} \\
\hline
20 & 4 \\
30 & 5 \\
\hline
\end{array}
\]

Rule: \(\div 5\)

Solve. Write a number sentence to show each quotient.

12. 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? ________________

Spiral Review

Divide. (Lesson 6–4)

13. \(30 \div 2 = \) _____  
14. \(18 \div 2 = \) _____  
15. \(40 \div 2 = \) _____
16. \(26 \div 2 = \) _____  
17. \(10 \div 2 = \) _____  
18. \(14 \div 2 = \) _____
6-6 Homework Practice

Problem-Solving Investigation: Choose a Strategy

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

- 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?


Spiral Review

Use models or related facts to divide. (Lesson 6–5)

5. $20 \div 5 = \_\_\_\_$
6. $15 \div 5 = \_\_\_\_$
7. $45 \div 5 = \_\_\_\_$
8. $25 \div 5 = \_\_\_\_$
9. $55 \div 5 = \_\_\_\_$
10. $10 \div 5 = \_\_\_\_$
11. $35 \div 5 = \_\_\_\_$
12. $30 \div 5 = \_\_\_\_$
13. $40 \div 5 = \_\_\_\_$
Divide by 10

Divide.

1. \(10 \div 10 = \) _____  
2. \(60 \div 10 = \) _____  
3. \(80 \div 10 = \) _____

4. \(160 \div 10 = \) _____  
5. \(200 \div 10 = \) _____  
6. \(140 \div 10 = \) _____

7. \(120 \div 10 = \) _____  
8. \(400 \div 10 = \) _____  
9. \(150 \div 10 = \) _____

10. \(10 \div 80 = \) _____  
11. \(10 \div 120 = \) _____  
12. \(10 \div 30 = \) _____

13. \(10 \div 100 = \) _____  
14. \(10 \div 500 = \) _____  
15. \(10 \div 70 = \) _____

Spiral Review

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

16. 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?

17. 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. If the pattern continued, how many children came on the fifth day the pool was open?
Homework Practice

Divide by 0 and 1

1. \(1 ÷ 1 = \)  
2. \(0 ÷ 6 = \)  
3. \(8 ÷ 1 = \)

4. \(5 ÷ 1 = \)
5. \(4 ÷ 4 = \)
6. \(8 ÷ 8 = \)

7. \(1)5\)
8. \(2)0\)
9. \(9)9\)

Solve. Write a number sentence to show each quotient.

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. \(100 ÷ 10 = \)
13. \(600 ÷ 10 = \)
14. \(180 ÷ 10 = \)

15. \(150 ÷ 10 = \)
16. \(220 ÷ 10 = \)
17. \(140 ÷ 10 = \)

ALGEBRA Solve. Find the missing number.

18. \(50 ÷ 10 = \) \[\square\]
19. \[\square\] \(÷ 10 = 3\)

20. \(150 ÷ \) \[\square\] \( = 15\)
21. \(650 ÷ \) \[\square\] \( = 65\)
**Homework Practice**

**Divide by 3**

Use models or related facts to divide.

1. \( 15 ÷ 3 = \) ______
2. \( 18 ÷ 3 = \) ______
3. \( 27 ÷ 3 = \) ______
4. \( 6 ÷ 3 = \) ______
5. \( 9 ÷ 3 = \) ______
6. \( 12 ÷ 3 = \) ______
7. \( 30 ÷ 3 = \) ______
8. \( 21 ÷ 3 = \) ______
9. \( 3 ÷ 3 = \) ______
10. \( 0 ÷ 3 = \) ______

**ALGEBRA** Compare Write >, <, or =.

11. \( \frac{21}{7} \bigg(\bigg) \ 6 \times 3 \)  
12. \( 25 \times 1 \bigg(\bigg) \frac{27}{3} \)

**ALGEBRA** Copy and complete the table.

13. |
| Rule: Divide by 3 |
|---|---|---|
| Input | 27 | 33 | 24 |
| Output | 10 | 1 | 7 |

**Spiral Review**

Divide.

14. \( 0 ÷ 8 = \) ______
15. \( 7 ÷ 1 = \) ______
16. \( 8 ÷ 1 = \) ______
17. \( 5 ÷ 1 = \) ______
18. \( 9 ÷ 1 = \) ______
19. \( 5 ÷ 5 = \) ______
20. \( 7 ÷ 7 = \) ______
21. \( 9 ÷ 9 = \) ______
Homework Practice

Divide by 4

Use models or related facts to 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 the missing factor or quotient.

9. $27 \div _____ = 9$
10. $_____ \div 3 = 10$
11. $20 \div _____ = 5$
12. $24 \div _____ = 4$

ALGEBRA Copy and complete the table.

<table>
<thead>
<tr>
<th>Input</th>
<th>8</th>
<th>16</th>
<th>20</th>
<th>Rule: Divide by 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>3</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

Spiral Review

Use models or related facts to 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. $33 \div 3$ _____
**Solve. Use the make a table strategy.**

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. How many clowns will walk 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?

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?

4. There are a total of 30 floats for the parade. The parade will last about 1 hour. 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?

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?

6. For every float, Mr. Frank wants 6 people. If there are 20 floats, how many people will Mr. Frank need?

---

**Spiral Review**

**Use models or related facts to divide. (Lesson 7–2)**

7. \(24 \div 4 = \) _____
8. \(4 \div 4 = \) _____
9. \(32 \div 4 = \) _____
10. \(28 \div 4 = \) _____
11. \(0 \div 4 = \) _____
12. \(20 \div 4 = \) _____
13. \(36 \div 4 = \) _____
14. \(16 \div 4 = \) _____
15. \(12 \div 4 = \) _____
Use models or repeated subtraction to divide.

1. \(12 \div 6 = \)______
2. \(18 \div 6 = \)______
3. \(56 \div 7 = \)______
4. \(28 \div 7 = \)______
5. \(36 \div 6 = \)______
6. \(48 \div 6 = \)______
7. \(49 \div 7 = \)______
8. \(14 \div 7 = \)______
9. \(30 \div 6 = \)______
10. \(60 \div 6 = \)______
11. \(21 \div 7 = \)______
12. \(35 \div 7 = \)______
13. \(42 \div 6 = \)______
14. \(63 \div 9 = \)______
15. \(54 \div 6 = \)______

**ALGEBRA** Complete the tables.

16. **Rule: Divide by 6**

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

17. **Rule: Divide by 7**

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
<th>63</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

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

18. Rides at an amusement park cost $4 per person or $24 for every 6 people. If a group of 21 people go to the amusement park, how much will they pay?

19. 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?
7–5

Homework Practice

Divide by 8 and 9

Use related facts or repeated subtraction to 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 each missing number.

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

Use models or repeated subtraction to 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. \(54 \div 6 \)
Use models to divide.

1. \(99 \div 11 = \underline{9}\)
2. \(55 \div 11 = \underline{5}\)
3. \(84 \div 12 = \underline{7}\)
4. \(48 \div 12 = \underline{4}\)
5. \(121 \div 11 = \underline{11}\)
6. \(22 \div 11 = \underline{2}\)

7. \(11)\underline{77}\)
8. \(12)\underline{72}\)
9. \(11)\underline{33}\)
10. \(11)\underline{121}\)
11. \(12)\underline{120}\)
12. \(11)\underline{88}\)
13. \(12)\underline{12}\)
14. \(12)\underline{96}\)

ALGEBRA Find each missing number.

15. \(66 \div 11 = \underline{6}\)
16. \(24 \div \underline{2} = 2 \underline{4}\)
17. \(\underline{8} \div 11 = 4 \underline{8}\)

Spiral Review

Use related facts or repeated subtraction to divide. (Lesson 7-5)

18. \(32 \div 8 = \underline{4}\)
19. \(56 \div 8 = \underline{7}\)
20. \(45 \div 9 = \underline{5}\)
21. \(99 \div 9 = \underline{11}\)
22. \(54 \div 9 = \underline{6}\)
23. \(48 \div 8 = \underline{6}\)
24. \(24 \div 8 = \underline{3}\)
25. \(27 \div 9 = \underline{3}\)
26. \(81 \div 9 = \underline{9}\)
27. \(40 \div 8 = \underline{5}\)
28. \(63 \div 9 = \underline{7}\)
29. \(64 \div 8 = \underline{8}\)
30. \(36 \div 9 = \underline{4}\)
31. \(72 \div 9 = \underline{8}\)
Homework Practice
Problem-Solving Investigation: Choose a Strategy

Solve. Use any strategy.
• Act it out
• Draw a picture
• Look for a pattern
• Make a table


2. Cindy decided to grow her own roses. One rose bush cost $20 and produced 10 roses. Since Cindy paid $12 for 12 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
Use models to divide. (Lesson 7–6)

5. $55 \div 11$ _____  
6. $12 \div 60$ _____
7. $36 \div 12$ _____  
8. $11 \div 88$ _____
9. $33 \div 11$ _____  
10. $12 \div 24$ _____
11. $48 \div 11$ _____  
12. $11 \div 66$ _____
13. $77 \div 11$ _____  
14. $12 \div 84$ _____

15. Matt has $110 to buy soccer balls for his soccer team. Each ball costs $11. How many soccer balls can he buy?
Write expressions based on the pictures.

1. 

2. 

Model each problem. Use a number sentence.

3. Jorge organized an event for the animal shelter. People could bring their pets for a bath. Jorge’s group gave baths to 27 pets. There were 4 cats, 2 iguanas, and the rest were dogs. How many dogs received baths?

4. Ellen received $25 from her grandma. She bought a book for $7, spent $5 on a movie, and bought her brother a comic book for $2. How much money was left?

Solve. (Lesson 7-7)

5. Alan spent $4 on lunch and $3 on a souvenir at the zoo. He had $1 left. How much money did he have?

6. Vicki collects seashells. This year, she collected 7 more medium shells than last year, and 11 more large shells than last year. She now has 32 medium shells and 26 large shells. How many of each type of shell did she have last year?

7. Ellen is planting new grass in the backyard. Grass seed costs $5 for a 12-pound bag. Ellen estimates that she needs 36 pounds of grass seed. How much money will Ellen need?

8. Randy spent $3 on dinner, and $4 on a movie. He had $3 left. How much did he have?
Write and expression and a number sentence for each problem. Use models if needed.

1. Marcus needs 4 daisies, 6 roses, 8 carnations, and 12 mums for his bouquet. How many flowers does he need?

2. Sonia made 12 muffins. Her mother made 37. How many more muffins did Sonia’s mother make?

<table>
<thead>
<tr>
<th>Favorite Fruit</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Banana</td>
<td>31</td>
</tr>
<tr>
<td>Apple</td>
<td>77</td>
</tr>
<tr>
<td>Peach</td>
<td>25</td>
</tr>
<tr>
<td>Pear</td>
<td>13</td>
</tr>
<tr>
<td>Orange</td>
<td>64</td>
</tr>
</tbody>
</table>

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

3. sum of all the votes

4. sum of votes for peach and pear

5. difference of votes for apple and orange

Spiral Review

Model each problem. Use a number sentence. (Lesson 8-1)

6. 15 customers ordered a bowl of tomato soup. 17 customers ordered potato soup. 4 customers ordered broccoli cheddar soup. How many customers were there in all?
8–3 Homework Practice

Problem-Solving Strategy: Act It Out

Solve. Use the act it out strategy.

1. A scuba diver saw many animals on his dive. If you can see \( \frac{1}{2} \) of the animals in the picture, how many more animals did the diver see? How many total animals did he see?

2. A fisherman caught a total of 10 fish in one day. If he ate 3 of the fish for breakfast and 3 of the fish for lunch, how many fish did he have for dinner?

3. Mai Lin has saved 7 coins. If she needs 10 coins to buy a toy, how many more coins does she need?

4. Sunee has 4 of her stuffed animals. She lent 2 of them to one friend. How many of her stuffed animals did she lend to her other friend if she had a total of ten?

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 an expression and a number sentence for each problem. Use models if needed. (Lesson 8–2)

6. Tom ran 3 miles yesterday and 4 miles today. How many miles did he run in all?

7. Anita’s dad made 15 hamburgers. Anita and her friends ate 12 of them. How many were left?
8–4 Homework Practice

Make a Table to Find a Rule

Find and extend the rule for each table. Then copy and complete.

1. Rule: __________
<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>10</td>
<td>50</td>
</tr>
</tbody>
</table>

2. Rule: __________
<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>32</td>
</tr>
</tbody>
</table>

3. Rule: __________
<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>7</td>
<td>48</td>
</tr>
</tbody>
</table>

4. Rule: __________
<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>35</td>
</tr>
<tr>
<td>4</td>
<td>56</td>
</tr>
</tbody>
</table>

5. Rule: __________
<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>54</td>
</tr>
<tr>
<td>5</td>
<td>60</td>
</tr>
<tr>
<td>6</td>
<td>72</td>
</tr>
</tbody>
</table>

6. Rule: __________
<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td>9</td>
<td>24</td>
</tr>
</tbody>
</table>

Spiral Review

Solve. Use the act it out strategy. (Lesson 8–3)

6. Tickets to the aquarium cost $12 for adults and $7 for children. How much do 1 adult and 2 children pay for tickets?

7. 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?
Complete each function table.

1. **Rule:** subtract 12
<table>
<thead>
<tr>
<th>Input (△)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

2. **Rule:** add 30
<table>
<thead>
<tr>
<th>Input (△)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>

Find the rule for each function table.

3. **Rule:**
<table>
<thead>
<tr>
<th>Input (△)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>37</td>
</tr>
<tr>
<td>40</td>
<td>42</td>
</tr>
<tr>
<td>45</td>
<td>47</td>
</tr>
<tr>
<td>50</td>
<td>52</td>
</tr>
</tbody>
</table>

4. **Rule:**
<table>
<thead>
<tr>
<th>Input (△)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>64</td>
</tr>
<tr>
<td>69</td>
<td>63</td>
</tr>
<tr>
<td>68</td>
<td>62</td>
</tr>
<tr>
<td>67</td>
<td>61</td>
</tr>
</tbody>
</table>

**Spiral Review**

Find and extend the rule for each table. (Lesson 8-4)

5. **Rule:**
<table>
<thead>
<tr>
<th>Input (△)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

6. **Rule:**
<table>
<thead>
<tr>
<th>Input (△)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td>6</td>
<td>36</td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>
Problem-Solving Investigation: Choose a Strategy

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

- Guess and Check
- Work a simpler problem
- Make a list
- Draw a picture
- Act it out

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?

2. You are having a fence built around your pool. How many feet of the fence will they need?

3. Sean runs 1 mile every Tuesday and Thursday. How many total miles does he run in four weeks?

4. Louis spent $6 from his piggy bank on a gift. How much money does he have left in his bank if he started with $13.

Spiral Review

Complete each function table. (Lesson 8-5)

5. **Rule:** add 5
<table>
<thead>
<tr>
<th>Input (△)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

6. **Rule:** subtract 10
<table>
<thead>
<tr>
<th>Input (△)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>82</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td></td>
</tr>
<tr>
<td>62</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td></td>
</tr>
</tbody>
</table>
Complete each function table.

<table>
<thead>
<tr>
<th>Rule: $\triangle \times 4$</th>
<th>Rule: $\triangle \div 2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input ($\triangle$)</strong></td>
<td><strong>Output ($\square$)</strong></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

Find the rule for each function table.

<table>
<thead>
<tr>
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<td>9</td>
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<td>5</td>
<td>45</td>
</tr>
<tr>
<td>7</td>
<td>63</td>
</tr>
</tbody>
</table>

Spiral Review

Use any strategy to solve. (Lesson 8-6)

5. When you subtract 2 from a number, double the difference, and then add 7, you get 57. What is the number?

6. Hal has 23 colorful pencils. He wants to share them with 4 of his friends. How many will each friend get (including Hal) if each one has the same amount? How many will be left?
Use an inch ruler. Draw a line for each length.

1. 3 and $\frac{1}{2}$ inches
2. $\frac{1}{2}$ inch
3. 5 inches

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

Use knowledge of expressions to answer the question. (Lesson 8-8)

6. You know that Melinda has $5 Janet has $10 more than Melinda. What does more mean? How much money does Janet have?

Write an expression.

7. Betty volunteered at the pledge drive for 13 hours. Her brother volunteered for half as long.
Choose the most appropriate unit to measure each length. Write \textit{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. 9 feet = _____ inches
10. 3 yards = _____ feet

Spiral Review

Use an inch ruler to answer the following questions. (Lesson 9–1)

11. Is the width of a crayon closer to an inch or a half inch? 

Draw a line for each length.

12. 2 inches
13. 1 \frac{1}{2} inches
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 ate lunch for one hour. Then, she cleaned up her room for 2 hours before leaving to visit a friend at 4 P.M. What time did she start her lunch?

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 Monday and Tuesday?

Spiral Review

Choose the best unit of measurement. (Lesson 9–2)

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
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

3. height of a lamp

4. thickness of a banana peel

5. distance to school

Choose the better estimate.

6. CD case
   12 mm or 12 cm

7. computer mouse
   13 mm or 13 cm

8. TV monitor
   70 cm or 70 m

Solve. Use the work backward strategy. (Lesson 9–3)

9. 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 a scarf before the trick began? ________________________________

10. 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?

________________________________________________________________________
**Homework Practice**

**Measure Perimeters**

Find the perimeter of each figure.

1. \(4 \text{ in.} + 4 \text{ in.} + 4 \text{ in.}\)

2. \(3 \text{ cm} + 3 \text{ cm} + 3 \text{ cm} + 3 \text{ cm}\)

3. \(17 \text{ ft} + 17 \text{ ft} + 17 \text{ ft} + 17 \text{ ft}\)

4. \(5 \text{ in.} + 2 \text{ in.} + 7 \text{ in.} + 7 \text{ in.}\)

5. \(3 \text{ m} + 3 \text{ m} + 3 \text{ m} + 3 \text{ m}\)

6. \(2 \text{ m} + 2 \text{ m} + 2 \text{ m} + 2 \text{ m}\)

Using the grids, create a shape with the following perimeters.

7. \(5 + 4 + 5 + 4\)

8. \(6 + 2 + 7\)

9. \(2 + 9 + 2 + 9\)

**Spiral Review**

Choose the most appropriate unit to measure each length. Write millimeter, centimeter, meter, or kilometer. (Lesson 9–4)

10. height of ceiling

11. length of book

12. length of a bus

13. length of highway

Choose the better estimate.

14. width of a quarter

- 15 mm or 15 cm

15. length of your gym

- 30 cm or 30 m
9–6

Homework Practice
Measure Areas

Find the area of each shaded figure.

1. 

2. 

3. 

4. 

5. 

6. 

Solve.

7. Sean and Jim were pouring some new concrete. They needed to cover a square that was 2 feet by 2 feet. What was the area of concrete poured? 

8. The new swimming pool in the neighborhood was huge. It was 60 meters by 8 meters. What was the area of the pool?

Spiral Review
Find the perimeter of each figure. (Lesson 9–5)

9. $3 + 4 + 5 + 6 = \_\_\_\_\_\_\_\_$

10. $2 + 2 + 2 + 2 + 2 + 2 + 2 = \_\_\_\_\_\_\_\_$

11. $5 + 8 + 10 + 13 = \_\_\_\_\_\_\_\_$

12. What is the perimeter of a parallelogram where one side is 12 m and the other side is 8m? 

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1. Irene had 15 thank you notes to write for her birthday gifts. She could easily write 3 thank you notes a night. How many nights will it take her to finish her notes?

2. 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?

3. Elena and Ricky had a contest. For every 2 apples she would eat, he would eat 3 kiwi. If Elena ate 6 apples, how many kiwi did Ricky eat?

4. 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?

Spiral Review

Find the area. (Lesson 9–6)

5. a yard that is 30 meters by 8 meters

6. a kitchen that is 12 ft by 11 ft
Homework Practice
Measure Temperatures

Write the temperature in degrees Fahrenheit.

1.

2.

3.

4.

5. Is it a warm day or a cold day if the temperature is 35°F?

6. If you placed a cup of water outside when the temperature was 36°F, would the water freeze? Explain how you know.

Write which temperature is greater.

7. 68°F or 86°F

8. 12°F or 2°F

9. 100°F or 212°F

10. 43°F or 42°F

Spiral Review

Use any strategy shown below to solve. (Lesson 9–7)

• Choose an operation
• Make a table
• Guess and Check
• Solve a simpler problem

11. Cesar was hanging a garland around the room. The garland was 40 feet long. He needed to tack it up every five feet. How many times did he have to tack the garland?

12. Sigrid was helping her parents lay new tile in the foyer of their house. The foyer was 8 feet by 8 feet, but the tiles were 4 square feet. How many tiles will they need to fill the space?
Choose customary units of capacity.

1. What unit would you use to measure the capacity of a glass of milk?
   
2. What would you use to measure a jug of orange juice?

Convert.

3. $5 \text{ pints} = \underline{\text{_____}} \text{ cups}$

4. $4 \text{ gallons} = \underline{\text{_____}} \text{ quarts}$

5. $2 \text{ quarts} = \underline{\text{_____}} \text{ cups}$

6. $3 \text{ gallons} = \underline{\text{_____}} \text{ quarts}$

7. $1 \text{ gallon} = \underline{\text{_____}} \text{ cups}$

8. $2 \text{ pints} = \underline{\text{_____}} \text{ cups}$

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

9. $4 \text{ pt} \quad \bigcirc \quad 2 \text{ qt}$

10. $12 \text{ pt} \quad \bigcirc \quad 20 \text{ c}$

11. $1 \text{ pt} \quad \bigcirc \quad 7 \text{ c}$

12. $12 \text{ pt} \quad \bigcirc \quad 12 \text{ c}$

13. $4 \text{ qt} \quad \bigcirc \quad 5 \text{ pt}$

14. $3 \text{ pt} \quad \bigcirc \quad 1 \text{ gal}$

Solve. Use the work backward strategy. (Lesson 9–8)

15. The normal body temperature of a cat is about $101^\circ$ Fahrenheit. Is this hotter or colder than room temperature?

16. Tell which temperature is hotter. $31^\circ F$ or $29^\circ F$
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**

Write the number that makes each sentence true.  
*(Lesson 10–1)*

5. 1 qt = _____ pt

6. 1 qt = _____ c

7. 1 gal = _____ qt

8. 1 pt = _____ c

9. 2 pt = _____ qt

10. 8 pt = _____ gal
Homework Practice
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 ________________

Write the number that makes each sentence true.

7. _____ mL = 4 L
8. _____ L = 3,000 mL
9. _____ mL = 8 L
10. _____ mL = 15 L
11. 11 L = _____ mL
12. 27 L = _____ mL

13. Hugo made some cupcakes. He used 10 mL of icing for each cupcake. How many mL will he use if he ices 24 cupcakes?

14. Lina is making soup. If she makes 3 L of soup and needs to fill 6 bowls that hold 400 mL, will she have enough soup?

Solve. Use the guess and check strategy. (Lesson 10–2)

15. Kira shares a plate of brownies with friends. Her friends each have 2 more brownies than Kira. There were 33 brownies in all. How many friends are there?

16. Toby is thinking of two numbers. Their sum is 22. Their difference is 12. What are the numbers?
1. 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?

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. Leo was building a fence. The fence was 63 meters long. If Leo placed a post every 9 meters, how many posts would he need?

4. Olivia picked $2\frac{1}{2}$ kilograms of cherries. She divided the cherries evenly among 10 small baskets. How much did each basket hold?

Spiral Review

Compare. Use $>$, $<$, or $=$. (Lesson 10–3)

5. $4 \text{ L} \bigcirc 4,000 \text{ mL}$

6. $500 \text{ mL} \bigcirc 1 \text{ L}$

7. $10,000 \text{ mL} \bigcirc 100 \text{ L}$

8. $3,500 \text{ L} \bigcirc 3,500 \text{ mL}$

9. At Carmen’s birthday party, each child drank at least 450 mL of punch. Carmen invited 12 of her closest friends. If Carmen’s mom made 5 L of punch, was there enough? Explain your answer.

10. Marcos was filling his small pool in the backyard. The hose was not working and he had to use a bucket to fill his pool. The pool held 600 liters of water. His bucket held 5 liters. How many times would he have to fill his bucket in order to fill the pool?
 Homework Practice

 Customary Units of Weight

 Predict whether the following items weigh less than one pound, about one pound, or more than one pound.

 1. a bike
 2. a pencil
 3. a soccer ball
 4. a car

 Convert.

 5. How many ounces are in 4 pounds?
 6. How many pounds are 32 ounces?

 Choose the better estimate.

 7. An empty plastic jug: 4 oz or 4 lbs
 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 is heavier?

 Spiral Review

 Use any strategy to solve. (Lesson 10–4)

 11. How many quart jugs of water will it take to fill a gallon jug?

Homework Practice

 Metric Units of Mass

1. List 4 things you could measure in grams:

2. List 4 things you might 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

Solve. (Lesson 10–5)

9. Sarah bought 7 bananas. Would they weigh 7 lbs or 7 tons in all?

10. Ava’s bag of popcorn weighs 6 ounces. Her box of crackers weighs 5 ounces. Which weighs more?

11. Jamal carried a bag of apples. Would they weigh 5 oz or 5 lbs?
Find the volume of each figure.

1. 

2. 

3. 

4. 

5. 

6. 

Spiral Review

Compare. Use >, <, or =. (Lesson 10–6)

7. 120 g ___ 12 kg

8. 1,000 g ___ 2 kg

9. 30 kg ___ 300 g

10. 6,000 g ___ 6 kg

11. 22 g ___ 22 kg

12. 500 kg ___ 500 kg

13. 8 kg ___ 8 g

14. 1 kg ___ 1,000 g
Write the time shown on each digital or analog clock.

1. \[7:05\]
2. \[9:00\]
3. \[2:50\]
4. \[1:30\]

5. If the minute hand is pointing to the number 5, how many minutes is it showing?
6. If the minute hand is pointing to the number 7, how many minutes is it showing?
7. A basketball game started at 7:00. One team called a time out 20 minutes later. What time did the team call a time out?

Spiral Review

Find the volume of each solid figure. (Lesson 10–7)

8. \[\text{Volume: } 9\text{ cubic units}\]
9. \[\text{Volume: } 8\text{ cubic units}\]
10. \[\text{Volume: } 12\text{ cubic units}\]
Homework Practice
Three-Dimensional Figures

Identify each three-dimensional figure.

1. [Image of a baseball]
2. [Image of a book]
3. [Image of a cube]

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 yoga ball. What solid figure would you consider a yoga ball to be?

Spiral Review

Write the time on each digital or analog clock. (Lesson 10–8)

6. [Image of an analog clock showing 6:30]

7. [Image of a digital clock showing 6:30]

8. Adam’s piano lessons start at 6:00. They end one hour later. What time do they end?
Identify each two-dimensional figure.

1.  
2.  
3.  
4.  

Fill in the blank with the correct term:

5. Each line segment in a polygon is called a __________.
6. A __________ is a closed plane figure with three or more line segments.
7. A __________ begins and ends at the same point.
8. A __________ is a flat figure.

Solve.

9. Eve is setting the dinner table with dishes, placemats, napkins, and utensils. What are some of the polygons she may be seeing on her table?

10. Carlos was admiring the city skyline. Do you think the building tops were open figures or closed figures? Explain your answer.

Spiral Review

Identify each three-dimensional figure. (Lesson 11–1)

11.  
12.  
13.  

Grade 3  
15  
Chapter 11
Solve. Use the *solve a simpler problem* strategy.

1. 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?

2. 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?

3. 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 4 dozen flowers, how many were roses?

4. 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?

5. Amy bought valentines for her class. They were sold in boxes of 8. Amy has 25 students in her class. How many boxes of valentines will she need to purchase?

6. Sean’s baby brother sleeps about 13 hours a day. If he takes 2 two-hour naps during the day, how long does he sleep at night?

---

**Spiral Review**

Identify each two-dimensional figure. (Lesson 11–2)

7. [Square]

8. [Pentagon]
Homework Practice
Identify and Extend Geometric Patterns

Apply each pattern.
1. How many trapezoids will be used if this pattern continues until there are a total of 18 polygons?

2. How many trapezoids will be used if this pattern continues until there are a total of 21 polygons?

3. How many plus signs will be used if the pattern continues until there are 33 shapes?

Solve.
4. A pattern repeats 4 squares and 2 triangles. If a circle is placed between each set of triangles, how many circles will there be if the pattern repeats itself until there are 22 shapes?

Spiral Review
Solve. Use the solve a simpler problem strategy. (Lesson 11-3)
5. Colleen ate apples 5 times a week. How many apples did she eat in 3 weeks?

6. Alicia scored three times as many points as Wade. If Wade scored 9 points, how many points did both children score in the game?
Tell whether each pair of figures is congruent. Write yes or no.

1. 

2. 

3. 

4. 

5. A rectangle measures 10 feet by 12 feet. If there is another rectangle that is congruent to the one described, how long are its sides? Explain how you know.

6. Sabrina created a pattern. It repeats a square, a pentagon, and a hexagon. What will the 22nd shape in her Sabrina’s pattern be?

7. There is a pattern that repeats a square and a triangle. If each side of each polygon is 1 inch, how many polygons will there be to make the total of the perimeters 35 inches?
Homework Practice
Problem-Solving Investigation

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

• Find a pattern  • Choose an operation  • Draw a picture or diagram

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
Tell whether each pair of figures is congruent. Write yes or no.
(Lesson 11–5)

5.  

6.  

---

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11–7

Homework Practice

Symmetry

Tell whether each figure has line symmetry. Write yes or no. If yes, tell how many lines of symmetry the figure has.

1. ________

2. ________

3. ________

4. ________

5. Name three numbers that have line symmetry. ________

Spiral Review

Use any strategy shown below to solve. (Lesson 11–6)

- Choose an operation
- Make a table
- 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 every five feet. How many times did he have to tack the garland?

7. Sigrid was helping her parents lay new tile in the foyer of their house. The foyer was 8 feet by 8 feet, but the tiles were 4 square feet. How many tiles will they need to fill the space?

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Tell what point represents each number on the number line.

1. 72
   - A 66
   - B 78
   - C 81

2. 64
   - A 34
   - B 54
   - C 94

Use the number line shown to answer Exercises 3–5.

V 195 202
W 223
X 244
Y 258
Z 265

3. What are the intervals of the number line? ________
4. Name point W on the number line. ________
5. What is the difference between point X and point Z? ________

Spiral Review

Tell whether each figure has line symmetry. Write yes or no. If yes, tell how many lines of symmetry the figure has. (Lesson 11–7)

6. 72
   ________

7. 64
   ________
Ordered Pairs

Write the ordered pair for the location of each item on the grid.

1. Julie __________
2. Rachel __________
3. Dennis __________
4. Dominic __________

5. Refer to the grid in Exercises 1–4. If each grid line shows 2 feet, how far apart is Dominic sitting from Rachel? __________

6. Explain how you would locate the point (10, 0) on a grid.

____________________________

____________________________

Spiral Review

Use the number line shown to answer Exercises 7–8. (Lesson 11–8)

7. What are the intervals of the number line? __________

8. What is the difference between point Q and point S? __________

9. Name point R on the number line. __________

10. Name point S on the number line. __________
Display the set of data in a pictograph. Let each symbol represent two horses.

Dulaney Horse Farm

<table>
<thead>
<tr>
<th>Appaloosa</th>
<th>Mustang</th>
<th>Clydesdale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Solve. Use the pictograph that you created.

1. How many horses does the Dulaney Horse Farm have?

2. Are there more or less than 5 mustangs at the Dulaney Horse Farm?

3. How many Appaloosas are there?

Spiral Review

Write the point for the place of each item on the grid. (Lesson 11–9)

4. sofa
5. chair
6. table
7. bench
Homework Practice
Interpret Pictographs

The Walsh family eats cereal every morning for breakfast. The pictograph below shows the amount of cereal the family eats in one year.

<table>
<thead>
<tr>
<th>Cereal Eaten in a Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit Os</td>
</tr>
<tr>
<td>Honey Wheat Squares</td>
</tr>
<tr>
<td>Rice Puffs</td>
</tr>
</tbody>
</table>

Key: $= 3 boxes

Use the pictograph to solve.

1. Which kind of cereal is the least popular?

2. How many more boxes of Rice Puffs than Fruit Os does the Walsh family eat in a year?

3. Does the Walsh family eat at least 6 boxes of each type of cereal?

4. Suppose each box of cereal costs $3. How much money does the Walsh family spend on Honey Wheat squares in a year?

Solve. (Lesson 12-1)

5. A pictograph shows 3 symbols. Each symbol represents 2 hours Matt spent studying. How long was Matt studying?

6. A pictograph shows 4 symbols. Each symbol represents 3 people who use a computer every day. How many people use a computer every day?
Homework Practice
Problem-Solving Strategy: Make a List

Solve. Use the make a list strategy.

1. Yolanda and Hugo want to order a pizza. Yolanda wanted pepperoni and sausage while Hugo wouldn’t mind green peppers and onions. In order to make everybody happy, they decided to come up with a combination. How many different combinations are possible?

2. Cristina is planting her spring garden. She had three different colors of tulips bulbs: yellow, purple, and pink. How many different color combinations can she come up with while planting her bulbs?

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 always has a cookout. They have hamburgers, cheeseburgers, and hot dogs. For dessert they have ice cream or cake. They served water or lemonade to drink. How many different ways can someone enjoy all the food at the end-of-the-year picnic?

Spiral Review

Use the pictograph to solve. (Lesson 12–2)

5. In which week were the most loons seen?

6. How many loons were seen during all 4 weeks?
1. Display the data in a bar graph.

<table>
<thead>
<tr>
<th>Kind of Pet</th>
<th>Tally</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat</td>
<td>####</td>
<td>8</td>
</tr>
<tr>
<td>Dog</td>
<td>####</td>
<td>6</td>
</tr>
<tr>
<td>Horse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bird</td>
<td>####</td>
<td>5</td>
</tr>
<tr>
<td>Fish</td>
<td>///</td>
<td>3</td>
</tr>
</tbody>
</table>

2. How many students attended the China Travel Day?

3. How many students attended the Ghana Travel Day?

4. How many more students attended the New Zealand Travel Day than the Spain Travel Day?

5. How many students attended the Travel Day?

6. Katie packs 3 pairs of pants in brown, black, and grey. She packs 3 sweaters in pink, blue, and yellow. How many different outfits can Katie wear?

7. Deirare is buying a car. She can choose a coupe, sedan, or SUV. The car comes in manual or automatic. It comes with or without a moon roof. How many different car choices are there?
Homework Practice
Interpret Bar Graphs

Solve. Use the bar graph below.

1. What is the difference between the number of people who like New York and San Francisco?

2. What is the most popular city?

3. What is the least popular city?

4. How many people listed San Antonio as their favorite city?

Spiral Review

Use the data in the bar graph to answer the questions. (Lesson 12-4)

5. How many students like pepperoni pizza?

6. How many more students like cheese than green peppers?

7. How many students were in this survey?
1. **Blue Jays Seen at Bird Feeder**

<table>
<thead>
<tr>
<th>Number of Blue Jays</th>
<th>Tally</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>I</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>III</td>
<td>3</td>
</tr>
</tbody>
</table>

**Homework Practice**

**Line Plots**

Display the set of data in a line plot.

For Exercises 2–4, refer to the line plots.

2. How many states have most students visited?

3. How many students have visited three states?

4. How many students participated in this survey?

**Spiral Review (Lesson 12-5)**

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?
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 likely or equally likely that a regular coin will land heads if flipped once?

8. Is it unlikely or impossible for it to snow if the temperature outside is 92°?

Spiral Review

Display the set of data in a line plot. (Lesson 11–2)

9. In which week were the most loons seen?

<table>
<thead>
<tr>
<th>Week</th>
<th>Tally</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
</tr>
<tr>
<td>2</td>
<td>I.I.I.</td>
</tr>
<tr>
<td>3</td>
<td>III</td>
</tr>
<tr>
<td>4</td>
<td>III</td>
</tr>
</tbody>
</table>

10. How many loons were seen during all 4 weeks?
Homework Practice

Problem-Solving Investigation: Choose a Strategy

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

- Make a model
- Make a table
- Work backward
- Guess and check
- Work a simpler problem
- Make a list

1. There are 5 small bags of banana chips, 8 small bags of pretzels, and twice as many packets of nuts in the pantry. How many bags of snacks are in the pantry?

2. The baby’s quilt is 2 feet wide by 3 feet long. Mark’s mom offered to make one twice as big. 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 equally likely. (Lesson 11–7)

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 ____________
Homework Practice

Parts of a Whole

On another piece of paper 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. $\frac{1}{3}$

Write a fraction to describe the fraction of the figure that 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.

<table>
<thead>
<tr>
<th>Pick a Name</th>
<th>Outcome</th>
<th>Tally</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ali</td>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Kate</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Devin</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Aisha</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

11. What name is most likely to be pulled next? Why?
Homework Practice

Parts of a Set

Write a fraction that describes the fractional part of the set that is shaded.

1. \[
\begin{array}{c}
\includegraphics[width=2in]{circle1.png} \\
\includegraphics[width=2in]{circle2.png} \\
\includegraphics[width=2in]{circle3.png}
\end{array}
\]

2. \[
\begin{array}{c}
\includegraphics[width=2in]{circle1.png} \\
\includegraphics[width=2in]{circle2.png} \\
\includegraphics[width=2in]{circle3.png}
\end{array}
\]

3. \[
\begin{array}{c}
\includegraphics[width=2in]{circle1.png} \\
\includegraphics[width=2in]{circle2.png} \\
\includegraphics[width=2in]{circle3.png}
\end{array}
\]

4. \[
\begin{array}{c}
\includegraphics[width=2in]{circle1.png} \\
\includegraphics[width=2in]{circle2.png} \\
\includegraphics[width=2in]{circle3.png} \\
\includegraphics[width=2in]{circle4.png}
\end{array}
\]

Write a fraction that describes a fractional part of the whole.

5. Marcus has thirteen pens. Seven of them are blue.

6. Jaclyn picked ten flowers. Three of them were daisies.

7. Bobby can play five songs on the piano. Two of them are classical.

Spiral Review

Write a fraction that describes the fractional part of the whole that is shaded. (Lesson 13-1)

8. \[
\begin{array}{c}
\includegraphics[width=2in]{rectangle1.png}
\end{array}
\]

9. \[
\begin{array}{c}
\includegraphics[width=2in]{circle.png}
\end{array}
\]

10. \[
\begin{array}{c}
\includegraphics[width=2in]{octagon.png}
\end{array}
\]
Homework Practice

Problem Solving Investigation: Choose a Strategy

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. The sign on the elevator says that it can safely carry 3,000 lbs. If you estimate that the average human weighs 150 lbs, how many people can ride in the elevator at one time?

4. A round trip ticket to Dallas is about $325. A one way ticket with restrictions can be purchased for $89. How much money can I save buying two one way tickets with restrictions?

Spiral Review

On another piece of paper draw a picture for each fraction. Shade the fraction. (Lesson 13–2)

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 __________________

13–4

Homework Practice

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 an equivalent fraction for 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. Will Alfonso have more than half or less than half of the lawn to mow? ________________

Spiral Review

Choose a strategy to solve. Tell which one you use. (Lesson 13-3)

- Guess and check  
- Make a table  
- Work backward  
- Look for a pattern  
- Draw a picture

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. 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? ________________
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 2 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?

4. Dora took a dozen crackers out of the oven. Kenny ate three and Marcos ate five. How many are left?

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

Use models to complete the equivalent fractions. (Lesson 13-4)

7. \( \frac{3}{4} = \boxed{\square} \) \[ 12 \]

8. \( \frac{1}{8} = \boxed{\square} \) \[ 16 \]

9. \( \frac{2}{5} = \boxed{\square} \) \[ 10 \]

10. \( \frac{5}{7} = \boxed{\square} \) \[ 21 \]

11. \( \boxed{\square} = \boxed{\square} \)

12. \( \boxed{\square} = \frac{2}{16} \)
Homework Practice

Compare and Order Fractions

Compare. Write $>$, $<$, or $=$. Use fraction strips, a number line, or a drawing if needed.

1. $\frac{1}{2} \bigcirc \frac{3}{4}$
2. $\frac{3}{5} \bigcirc \frac{2}{5}$
3. $\frac{1}{6} \bigcirc \frac{2}{6}$
4. $\frac{1}{4} \bigcirc \frac{1}{8}$
5. $\frac{2}{6} \bigcirc \frac{1}{4}$
6. $\frac{3}{8} \bigcirc \frac{1}{4}$
7. $\frac{2}{5} \bigcirc \frac{7}{8}$
8. $\frac{2}{8} \bigcirc \frac{2}{3}$
9. $\frac{2}{3} \bigcirc \frac{3}{8}$
10. $\frac{1}{3} \bigcirc \frac{2}{6}$
11. $\frac{3}{7} \bigcirc \frac{2}{5}$
12. $\frac{3}{4} \bigcirc \frac{5}{8}$

Solve.

13. Morgan, Wes, and Carlos eat a box of raisins. Morgan eats $\frac{1}{2}$ of the raisins. Carlos eats $\frac{1}{4}$ of the raisins and Wes eats $\frac{1}{3}$ of the raisins. Order the amounts of the eaten raisins in order from greatest to least.

14. The cookie recipe calls for $\frac{3}{4}$ cup of flour, $\frac{1}{2}$ cup of sugar, and $\frac{1}{8}$ teaspoon of salt. Order the amount of ingredients from least to greatest.

Spiral Review

Solve. Use the draw a picture strategy. (Lesson 13-5)

15. Carolina walked west one block, south one block, east one block, and south one block. Did she make a complete square? ______

16. Six lunch boxes sat on the ledge. Half were plain, and the rest had cartoon characters on them. How many were plain? ____________

17. 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? ________________

18. 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? ______
Name ___________________________ Date __________________

Homework Practice

Locate Fractions on a Number Line

Locate a point on the number line.

1. \( \frac{2}{3} = \) Point ________

2. \( 6\frac{1}{2} = \) Point ________

Write a fraction to name a point on the number line.

3. Point A = ________

4. Point B = ________

Solve.

5. Name the two fractions that are between \( \frac{1}{10} \) and \( \frac{4}{10} \) on a number line.

6. Name the fraction that is between \( \frac{2}{5} \) and \( \frac{4}{5} \) on a number line.

7. Name three fractions that are between \( \frac{1}{9} \) and \( \frac{8}{9} \) on a number line.

8. Name the fraction that is between \( \frac{4}{6} \) and 1 on a number line.

Spiral Review

Compare. Use <, >, or =. (Lesson 13-6)

9. \( \frac{1}{8} \) \( \bigcirc \) \( \frac{5}{8} \)

10. \( \frac{2}{3} \) \( \bigcirc \) \( \frac{1}{3} \)

11. \( \frac{5}{7} \) \( \bigcirc \) \( \frac{4}{7} \)

12. \( \frac{2}{4} \) \( \bigcirc \) \( \frac{4}{8} \)

13. \( \frac{3}{9} \) \( \bigcirc \) \( \frac{1}{3} \)

14. \( \frac{5}{6} \) \( \bigcirc \) \( \frac{2}{6} \)
Write a fraction and a decimal for the part that is shaded.

1. [Shaded sections of a rectangle]

2. [Shaded sections of another rectangle]

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**

Name the points on the number line (Lesson 13–8)

13. Point A =

14. Point B =
Write a fraction and a decimal for the part that is shaded.

1. [Diagram of shaded fraction]
   
2. [Diagram of shaded fraction]
   
3. [Diagram of shaded fraction]
   
   _____  _____  _____

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 14–1)

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 _____
Homework Practice

Problem-Solving Strategy

Solve. Use the work backward strategy.

1. 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?

2. 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?

3. 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?

4. Francesca is a flower girl in a wedding. She has to drop rose petals on the ground with every other step she takes down the aisle. If it will take her 18 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 (Lesson 14–2)

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
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?

Solve. Use the work backward strategy.

5. 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?

6. 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?
Use any strategy shown below to solve. Tell what strategy you used.

- Make an organized list
- Act it out
- Draw a picture
- 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 (Lesson 14-4)

Write the part of the dollar each amount represents.

4. Randy has 6 dimes and 3 nickels. How much money does he have all together?

5. Lewis went to the store to buy hamster food. He spent 4 quarters and 4 dimes. How much did he spend altogether?
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. \(50 \times 60 = \) _____

12. \(30 \times 40 = \) _____

13. \(700 \times 60 = \) _____

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 one dozen flowers. (Remember: a dozen = 12) How many flowers were delivered that day? ________________

Spiral Review (Lesson 14–5)

Choose the best strategy to solve.

17. If one pair of jeans cost $39, how much would ten pairs of jeans cost? _____

18. Five students were in line. Emily was next to Isabel. Isabel was next to Brittany. Susana was last. Where was Ernesto? ________________
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 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. Where did John come 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. Whom did Cosmo belong to? ____________

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 15–1)

9. 80 \times 60 = \underline{______} 
10. 6 \times 5,000 = \underline{______} 
11. 7 \times 70 = \underline{______} 
12. 400 \times 20 = \underline{______} 
13. 20 \times 20 = \underline{______} 
14. 300 \times 9 = \underline{______}
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. Estimate by rounding to the nearest ten or nearest hundred.

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?  

Solve. Use logical reasoning. (Lesson 15–2)

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?
Multiply by a One-Digit Number

Multiply.

1. \(2 \times 44 = \)  
2. \(2 \times 43 = \)  
3. \(2 \times 123 = \)  
4. \(3 \times 23 = \)

5. \(10 \times 9 = \)  
6. \(214 \times 2 = \)  
7. \(3 \times 131 = \)  
8. \(42 \times 2 = \)

9. \(11 \times 8 = \)  
10. \(30 \times 3 = \)  
11. \(141 \times 2 = \)  
12. \(212 \times 4 = \)

13. \(400 \times 2 = \)  
14. \(323 \times 3 = \)  
15. \(312 \times 2 = \)  
16. \(114 \times 2 = \)

17. \(918 \times 1 = \)  
18. \(300 \times 3 = \)  
19. \(100 \times 9 = \)  
20. \(11 \times 7 = \)

21. \(402 \times 2 = \)  
22. \(131 \times 2 = \)  
23. \(232 \times 3 = \)  
24. \(222 \times 4 = \)

Solve.

25. 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? ____________

26. Jorge is collecting baseball cards. He has 22 stacks of 4 cards. How many cards does he have altogether? ____________

27. Susana collected 2 cents at the recycling plant for each of her 242 cans. How much money did she collect altogether? ____________

28. 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 15–3)

29. \(85 \times 6 = \)  
30. \(703 \times 4 = \)  
31. \(315 \times 4 = \)

32. \(895 \times 3 = \)  
33. \(56 \times 7 = \)  
34. \(49 \times 5 = \)
15–5 Homework Practice: Choose a Strategy
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 up 16 pages between now and Friday morning. How many pages will she need to type a 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 \( \frac{5}{8} \) of a 9-inch pizza for \( \frac{4}{9} \) of a 9-inch cake. If Jackie accepts, who is getting more to eat?

Spiral Review
Multiply. (Lesson 15-4)

7. \( 22 \times 3 = \) ______

8. \( 44 \times 2 = \) ______

9. \( 123 \times 2 = \) ______

10. \( 3,003 \times 3 = \) ______

11. \( 212 \times 4 = \) ______

12. \( 424 \times 2 = \) ______
15–6 Homework Practice

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? _____

10. Laura walked her dog 6 blocks a day. How many blocks did she walk in 21 days? _____

11. The lemonade was served in 20-ounce cups. There were 9 thirsty players in line. If each received one cup of lemonade, how many ounces of lemonade would be served to the players? _____

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 15-5).

13. If one pair of jeans cost $39, 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 a quarter a piece. How much money did he spend? _____
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 Fort 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 15-6)

16. \[32 \times 5 = \] 17. \[94 \times 3 = \]

18. \[57 \times 8 = \] 19. \[27 \times 6 = \]

20. \[81 \times 4 = \] 21. \[23 \times 4 = \]