Identify the pattern. Then find the missing numbers.

1. 5, ______, 15, ______, 25, ______
2. 6, 8, 10, ______, 14, ______, ______
3. 75, ______, 65, 60, ______
4. 7, 10, ______, 16, ______, 22
5. 105, 110, ______, 120, ______
6. 96, 94, ______, ______, 88

Solve.

7. Dylan collects 4 more cans for the recycling center than the day before. If the pattern continues, how many cans will he collect on Thursday and Friday?

<table>
<thead>
<tr>
<th>Day</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>6</td>
</tr>
<tr>
<td>Tuesday</td>
<td>10</td>
</tr>
<tr>
<td>Wednesday</td>
<td>14</td>
</tr>
<tr>
<td>Thursday</td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td></td>
</tr>
</tbody>
</table>

8. Sharika wants to do 3 more sit-ups each day. If she continues, how many sit-ups will she do on Saturday and Sunday?

<table>
<thead>
<tr>
<th>Day</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday</td>
<td>52</td>
</tr>
<tr>
<td>Thursday</td>
<td>55</td>
</tr>
<tr>
<td>Friday</td>
<td>58</td>
</tr>
<tr>
<td>Saturday</td>
<td></td>
</tr>
<tr>
<td>Sunday</td>
<td></td>
</tr>
</tbody>
</table>
Solve. Use the four-step plan.

1. Stephen hits a target worth 60 points. He then hits a target worth 5 points three times. How many points does Stephen have now?

2. Javier has 500 points. Daniel has 200 points less than Javier. Kevin has 300 points more than Daniel. Who is the winner?

3. Amber buys a game for $8. She gives the clerk two $5-bills. What is her change?

4. Austin starts with $400 in play money. In three rounds of a game, Austin wins $10 in each round. How much money does Austin have after those three rounds?

5. Luke scores 450 points in the first round, 100 points in the second round, and 400 points in the third round. Does he score more than 1,000 points? How many points does he have?

6. Ricardo has 3,400 points. He has one turn left. The record is 4,100 points. If Ricardo scores 600 more points, how many points will he have? Will he break the record?
Write each number in **standard form**.

1. \[
\begin{array}{ccc}
\hline
\text{ hundreds } & \text{ tens } & \text{ ones } \\
\hline
2 & 3 & 4 \\
\end{array}
\]

   \[
   234
   \]

2. \[
\begin{array}{ccc}
\hline
\text{ thousands } & \text{ hundreds } & \text{ tens } & \text{ ones } \\
\hline
1 & 2 & 3 & 4 \\
\end{array}
\]

   \[
   1,234
   \]

3. \[600 + 50 + 7 = 657\]

4. \[5 + 30 + 400 + 2,000 = 2,435\]

5. six hundred nine

6. two thousand, eighty

Write each number in **word form**.

7. 374

8. 3,800

Write each number in **expanded form**.

9. 293

10. 4,190

11. 2,050

12. 3,704
Write the place of each underlined digit. Then write its value.

1. 554
2. 43,066
3. 5,608
4. 876
5. 78,998
6. 7,443
7. 45,887
8. 93,405

Write the value of the 6 in each number.

9. 65
10. 35,615
11. 567,422
12. 336,898
13. 127,061
14. 699,423

Write the digit in each place named.

15. 4,521 (hundreds)
16. 98,641 (tens)
17. 75,092 (ten thousands)
18. 6,232,001 (ones)
19. 45,013 (thousands)
20. 77,611 (hundreds)
21. 423,026 (ten thousands)
22. 1,309 (tens)
Solve using the **four-step plan**.

1. Jamie has 540 points in a game. Darren has 430 points. How many more points does Jamie have than Darren?

2. Javier wants to practice soccer twice as long as he did the day before. If he practiced for 30 minutes yesterday, how long will Javier practice today?

3. Travis plans to use a new fish hook every two days on his camping trip. If the trip lasts 12 days, how many fish hooks will Travis use?

4. Henry bought 2 shirts at $6 each. How much did he spend in all?

5. In Gabriella’s picture, she has made every third item a star. If her picture contains 18 items, how many of them are stars?

6. Write a problem that you solve using the four-step plan.
Compare. Write $>$, $<$, or $=$.

1. 43 $\bigcirc$ 34
2. 432 $\bigcirc$ 423
3. 293 $\bigcirc$ 329
4. 564 $\bigcirc$ 654
5. 900 $\bigcirc$ 800
6. 202 $\bigcirc$ 220
7. 808 $\bigcirc$ 808
8. 39 $\bigcirc$ 93
9. 227 $\bigcirc$ 272
10. $123 \bigcirc$ $231$
11. 661 $\bigcirc$ 616
12. $397 \bigcirc$ $367$
13. 876 $\bigcirc$ 678
14. 85 $\bigcirc$ 58
15. $455 \bigcirc$ $453$
16. $515 \bigcirc$ $515$
17. 670 $\bigcirc$ 677
18. 424 $\bigcirc$ 422

Solve.

19. Grace spent 46¢ on a pencil. Beth spent 26¢. Who spent more money on their pencil?

20. Alex has 256 stamps in his collection. Brent has 289. Who has fewer stamps?

21. Kelly has saved $125. Maria has saved $75. Does Maria need more or less money to have the same amount as Kelly?

22. Mia took 47 pictures on her vacation. Theresa took 10 more pictures than Mia. How many pictures did Theresa take?
Skills Practice
Order Numbers

Order the numbers from greatest to the least.

1. 822; 1,304; 877
2. 6,423; 3,654; 6,236
3. 8,000; 8,001; 8,100
4. 3,343; 3,453; 4,352
5. 9,019; 9,110; 9,919
6. 5,909; 9,509; 5,919
7. 1,564; 1,643; 1,765
8. 2,443; 4,324; 2,344

Order the numbers from least to the greatest.

9. 1,879; 1,289; 1,978
10. 5,103; 5,310; 1,531
11. 6,445; 6,544; 4,655
12. 4,455; 5,444; 4,545
13. 7,776; 7,667; 6,776
14. 3,990; 3,997; 3,799
15. 2,220; 2,202; 2,022
16. 2,993; 9,239; 2,393
Skills Practice
Round to the Nearest ten and Hundred

Round to the nearest ten.

1. 37 ______
2. 68 ______
3. 59 ______
4. 17 ______
5. 243 ______
6. 1,254 ______
7. 1,388 ______
8. 3,566 ______
9. 9,034 ______

Round to the nearest hundred.

10. 218 ______
11. 532 ______
12. 715 ______
13. 343 ______
14. 777 ______
15. 1,233 ______
16. 5,617 ______
17. 1,855 ______
18. 35,787 ______

Find the missing digit to make the sentence true.

19. 6 □ 8 rounds to 630. ______
20. □ , 524 rounds to 8,000. ______
21. 2 □ 8 rounds to 250. ______
22. 4,5 □ 3 rounds to 4,600. ______
23. 9 □ 3 rounds to 1,000. ______
24. 3 □ 5 rounds to 370. ______

Solve.

25. Carlos has 37 CDs in his music collection. To the nearest ten, how many CDs does Carlos own?

26. Nathan scored 12,349 points playing a video game. To the nearest hundred, how many points did he score?
Skills Practice

Round to the Nearest Thousand

Round to the nearest thousand.

1. 1,600 ______ 4. 5,790 ______ 7. 38,288 ______
2. 5,689 ______ 5. $4,560 ______ 8. 5,604 ______
3. 3,334 ______ 6. 15,699 ______ 9. 2,298 ______

Use data from the table for problems 10–13.

<table>
<thead>
<tr>
<th>Depths of Oceans</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ocean</strong></td>
</tr>
<tr>
<td>Pacific</td>
</tr>
<tr>
<td>Atlantic</td>
</tr>
<tr>
<td>Indian</td>
</tr>
<tr>
<td>Arctic</td>
</tr>
</tbody>
</table>

10. What is the depth of the Arctic Ocean rounded to the nearest thousand?

11. Which ocean has an average depth of about 12,000 ft?

12. What is the depth of the Pacific Ocean rounded to the nearest thousand?

13. What is the depth of the Indian Ocean rounded to the nearest thousand?
Determine the value of coins.

1. 

2. 

3. 

4. 

Determine the value of bills and coins.

5. 

6. Samuel has 5 coins that equal 86¢. What coins does he have?
How many pieces of fruit are pictured above?

4 + 3 + 2 = 9 pieces of fruit

We can get the same result by using addition properties. Fill in the missing numbers below, using each property.

A. Commutative: \(4 + 3 + 2 = 2 + 4 + 3 = \) ______

B. Identity: \(0 + \) ______ = 9

C. Associative: \((4 + 3) + 2 = \) ______ + (______ + 2) = 9

Find each missing number. Identify the property shown.

1. \(220 + 0 = \) ______

2. \(14 + 4 = 18\)
   \(4 + \) ______ = 18 ______

3. \(8 + (2 + 5) + 3 = (8 + 2) + (5 + 3) = \) ______

Find each sum mentally. Tell which property you used.

4. \(2 + 3 + 2 = \) ______

5. \(6 + 8 + 2 = \) ______

6. \(4 + 1 + 5 + 6 = \) ______
Skills Practice

Problem-Solving Skill: Estimate or Exact Answer

Tell whether an estimate or an exact answer is needed. Then solve.

1. Chan is learning about dinosaurs. The head of Chan’s favorite dinosaur is 14 feet long, the body is 22 feet long, and the tail is 19 feet long. In all, how long is the entire dinosaur?

2. Jasmine and Casey are in charge of bringing fruit for the class picnic. There are 34 students in their class. Jasmine and Casey buy 11 apples, 6 oranges, 7 bananas, and 8 peaches. Will there be enough for everyone to have one piece of fruit? Explain.

3. For Exercise 2, use estimation to see whether or not Jasmine and Casey will have enough fruit for the class. Is estimation a good way to solve this problem?

4. 75 people will attend the outdoor band concert this summer. 20 people can sit in each row. How many people will be sitting in the shortest row?

5. About 26 babies are born every 2 days at the Pine Valley Hospital. In 4 days, about how many babies will be born there?
Name ___________________________ Date __________________

Skills Practice

Estimate Sums

Estimate each sum using rounding.
1. 95¢ + 31¢ _______
2. $216 + $612 _______
3. 909 + 85 _______
4. 239 + 478 _______
5. 442 + 261 _______
6. 22¢ + 84¢ _______

Estimate each sum using compatible numbers.
7. $650 + $886 _______
8. 347 + 224 _______
9. 2,898 + 6,781 _______
10. 45¢ + 85¢ _______
11. 24 + 176 _______
12. 8,683 + 331 _______

Solve.

13. Kayla collects animal pictures. So far, she has 27 horse pictures, 22 monkey pictures, 34 dog pictures, and 12 pictures of bears. About how many pictures does she have now?

14. This week the school store sold 239 pencils and 112 folders. About how many pencils and folders did the school store sell this week?
Skills Practice
Two-Digit Addition

Add. Check for reasonableness.

1. $32 + 12 = \underline{\hspace{2cm}}$
   2. $12 + 17 = \underline{\hspace{2cm}}$
   3. $45 + 25 = \underline{\hspace{2cm}}$

4. $38 + 16 = \underline{\hspace{2cm}}$
   5. $31 + 22 = \underline{\hspace{2cm}}$
   6. $29 + 50 = \underline{\hspace{2cm}}$

ALGEBRA Find each missing digit.

7. $72 + 2 \underline{\hspace{1cm}} = 94$
   8. $3 \underline{\hspace{1cm}} + 37 = 76$

9. $\underline{\hspace{1cm}} 0 + 46 = 96$
   10. $83 + 3 \underline{\hspace{1cm}} = 121$

11. $\underline{\hspace{1cm}} 6 + 54 = 150$
   12. $5 \underline{\hspace{1cm}} + 27 = 84$

13. $\underline{\hspace{1cm}} 4 + 31 = 75$
   14. $11 + \underline{\hspace{1cm}} 6 = 97$

Solve.

15. For a family picnic, Javier bought 18 peaches, and his sister bought 24 apples. How many pieces of fruit did they buy?

16. Alondra’s science class planted 29 zinnia seeds and 31 marigold seeds. What is the total number of seeds they planted?
Add Money

Add. Use estimation to check for reasonableness.

1. 83¢ + 12¢ = _____
2. 45¢ + 45¢ = _____
3. $72 + $14 = _____
4. $33 + $27 = _____
5. $1 + $3 = _____
6. $50 + $79 = _____
7. 23¢ + 26¢ = _____
8. $3 + $15 = _____
9. $7 + $12 = _____
10. 61¢ + 11¢ = _____
11. $23 + $38 = _____
12. $6 + $43 = _____

Solve. Use the table for Exercises 13 and 14.

<table>
<thead>
<tr>
<th>Clothing Outlet</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pullovers</td>
<td>$18</td>
</tr>
<tr>
<td>Tennis shoes</td>
<td>$25</td>
</tr>
<tr>
<td>Socks</td>
<td>$4</td>
</tr>
<tr>
<td>Swimsuits</td>
<td>$35</td>
</tr>
</tbody>
</table>

13. Lalia wants to buy a swimsuit and a pair of tennis shoes. How much would that cost?

14. Justin is buying a pullover, a swimsuit, and a pair of socks. How much will these cost?

15. Alanzo wants to buy a basketball that costs $15, a T-shirt that costs $14, and a DVD that costs $6. How much will he spend in all? (Hint: You can use partial sums to add these prices.)
Solve. Then tell if your answer is an estimate or an exact answer.

1. Delmar’s class has collected money for charity. They have 21 dollars, 9 quarters, and 15 pennies. How much money do they have in all?

2. For Garrett’s birthday party, he is bringing 4 bags of cookies to school. Each bag contains about 12 cookies. If there are 24 students in his class, about how many cookies will each person get?

3. In their classroom, Bill sits on the right end and Amanda sits on the left end of their row. Daniela sits between Amanda and Andrew, and Rachel sits between Bill and Andrew. Draw a seating chart showing where each student sits.

4. In one aquarium, there are 22 minnows. In another aquarium, there are 31 tadpoles, and in the third aquarium, there are 27 snails. About how many pond animals are there?

5. Emily visits her aunt over winter break. She rides 27 miles to the airport. Then she travels 325 on a plane. About how many miles did Emily travel to her aunt’s house?
Find each sum. Use models if needed.

1. $75 + $85 = _____
2. 49 + 13 = _____
3. 342 + 208 = _____
4. 53 + 138 = _____
5. 64 + 836 = _____
6. 25¢ + 97¢ = _____

Solve.

7. 661 + 99 = _____
8. 58¢ + 37¢ = _____
9. $788 + $706 = _____
10. 617 + 91 = _____
11. 14¢ + 67¢ = _____
12. 23 + 529 = _____
13. 711 + 193 = _____
14. $17 + $55 = _____
15. 682 + 39 = _____
16. 77 + 47 = _____

17. For a PTA meeting at the Parkvale Elementary School, the principal has ordered 215 muffins and 155 bagels. How many muffins and bagels were there in all?

18. In February, Lucinda read a book that was 98 pages long. In March, she read a book that was 124 pages long. How many pages did she read in February and March?

19. Miranda’s sunflower plants grew 27 inches in the first month and 37 inches the second month. How tall were Miranda’s sunflowers after two months?
Add Greater Numbers

Find each sum. Use estimation to check for reasonableness.

1. $328 + 5,908$
2. $448 + 561$
3. $5,725 + 2,780$
4. $806 + 1,220$
5. $302 + 1,445$
6. $1,833 + 289$
7. $4,378 + 1,234$
8. $159 + 2,237$
9. $933 + 1,005$
10. $231 + 8,304$

Solve

11. In a survey, students were asked which job they would prefer. These were the results:

<table>
<thead>
<tr>
<th>Job</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientist</td>
<td>129</td>
</tr>
<tr>
<td>Writer</td>
<td>93</td>
</tr>
<tr>
<td>Doctor</td>
<td>76</td>
</tr>
</tbody>
</table>

Estimate how many students participated in the survey.

12. Rachel is running in a cross-country race. She bought running shorts for $29 and running shoes for $42. How much did she spend?

13. Jake cleaned his room for 11 minutes, mowed the lawn for 25 minutes, and helped his father wash the car for 15 minutes. How long did he work?
Name __________________________ Date __________________

Skills Practice
Two-Digit Subtraction

Subtract. Use models if needed. Check your answer.

1. \(68 - 9 = \) _____
2. \(33 - 23 = \) _____

3. \(75 - 6 = \) _____
4. \(49 - 9 = \) _____

5. \(22 - 3 = \) _____
6. \(66 - 15 = \) _____

7. \(85 - 3 = \) _____
8. \(11 - 7 = \) _____

9. \(37 - 28 = \) _____
10. \(90 - 22 = \) _____

11. \(55 - 6 = \) _____
12. \(30 - 24 = \) _____

13. \(17 - 13 = \) _____
14. \(82 - 23 = \) _____

15. \(47 - 8 = \) _____
16. \(90 - 3 = \) _____

17. Tess has 42 jars of paint. She gave 13 jars to Penny and 15 jars to John. How many were left for herself?

18. Retta is 43 inches tall. Her brother is 52 inches tall. What is the difference in their heights?

19. Kiyo had $21 when she went to the shopping center. On her trip, she purchased a new alarm clock. If she returned home with $8, how much was the alarm clock?
Estimate. Round to the nearest ten or hundred.

1. 73 – 27 ______
2. 91 – 65 ______
3. 685 – 193 ______
4. 947 – 831 ______
5. 45 – 19 ______
6. 54 – 38 ______
7. 615 – 315 ______
8. 725 – 199 ______
9. 981 – 350 ______
10. 862 – 98 ______
11. 219 – 98 ______
12. 550 – 95 ______
13. 703 – 376 ______
14. 902 – 829 ______
15. 1,709 – 888 ______
16. 7,233 – 999 ______
17. 1,590 – 690 ______
18. 9,031 – 1,786 ______
19. 58 – 27 ______
20. 92 – 18 ______
21. 168 – 79 ______
22. 705 – 280 ______
23. 932 – 239 ______
24. 850 – 176 ______
25. 48 – 27 ______
26. 650 – 403 ______

Solve.

27. A sugar maple tree is 72 feet tall. A pecan tree is 111 feet tall. About how much taller is the pecan tree?

________________________________________

28. A ponderosa pine tree is 143 feet tall. It is 89 feet taller than a red juniper tree. About how tall is the red juniper tree?

________________________________________
Skills Practice

Subtract Money

Subtract. Use models if needed.

1. \[89\text{¢} - 35\text{¢} \]
2. \[\$46 - \$18 \]
3. \[\$83 - \$42 \]
4. \[30\text{¢} - 11\text{¢} \]
5. \[62\text{¢} - 25\text{¢} \]
6. \[\$75 - \$14 \]
7. \[\$458 - \$29 \]
8. \[\$60 - \$37 \]

Solve.

9. Ross buys a game for \$6. He gives the cashier \$10. How much change does he get?

10. Tawana buys a puzzle for \$4. The cashier gives her \$2 in change. How much did she give the cashier?

11. Annie bought a new shirt and paid with a \$20-bill. The cashier gave Annie \$2 in change. How much did the shirt cost?

12. Howard bought two sandwiches for \$5 each. He gave the cashier two \$5-bills. How much change did he get?
Skills Practice

Problem-Solving Skill: Reasonable Answers

Solve. Check for reasonableness.

1. On Monday 321 people came for a craft show. On Tuesday 619 people came. Is it reasonable to say about 300 more people came to the craft show on Tuesday? _____

   Explain. ____________________________________________

2. Seth’s class took a poll to find out what weekend activities people enjoy. The table below shows their answers.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>playground</td>
<td>8</td>
</tr>
<tr>
<td>movie</td>
<td>4</td>
</tr>
<tr>
<td>friend over</td>
<td>12</td>
</tr>
<tr>
<td>be with family</td>
<td>8</td>
</tr>
</tbody>
</table>

   Seth estimated that about half his class likes to spend time with their families. Is this reasonable? _____

   Explain. ____________________________________________

3. Using Seth’s class poll, is it reasonable to say that most of the class likes to have friends over or spend time with family? _____

   Explain. ____________________________________________

4. Dominique called her grandmother 17 times in July. She estimates that she called about half the days in July. Is this reasonable? _____

   Explain. ____________________________________________
Skills Practice
Subtract Three-Digit Numbers with Regrouping

Subtract. Check your answer.

1. \(597 - 318 = \) 
2. \(270 - 121 = \)

3. \(464 - 128 = \) 
4. \(743 - 206 = \)

5. \(632 - 427 = \) 
6. \(560 - 335 = \)

7. \(823 - 426 = \) 
8. \(936 - 319 = \)

9. \(448 - 329 = \) 
10. \(840 - 321 = \)

ALGEBRA Find each missing digit.

11. \[
\begin{array}{c}
51 \square \\
- 31 \square \\
\hline
19 \square
\end{array}
\]

12. \[
\begin{array}{c}
\square32 \\
- \square29 \\
\hline
1\square3
\end{array}
\]

13. \[
\begin{array}{c}
\square11 \\
- 22 \square \\
\hline
3\square2
\end{array}
\]

14. \[
\begin{array}{c}
74\square \\
- 15\square \\
\hline
58\square
\end{array}
\]

15. \[
\begin{array}{c}
3\square6 \\
-1\square8 \\
\hline
6\square8
\end{array}
\]

16. \[
\begin{array}{c}
\square42 \\
- 31\square \\
\hline
12\square
\end{array}
\]
Use any strategy shown below to solve. Tell what strategy you used.

1. Mariah earned 43 ribbons from swim meets this month. Now she has 756 ribbons in all. How many ribbons did she have before this month? ________________
   What strategy did you use? ________________________________

2. Brad walks up 53 steps to get home. There are 211 steps to the top of his building. How many more steps would Brad have to walk up to get to the top floor? ________________
   What strategy did you use? ________________________________

3. 12 oranges come in a carton. Nadia saw a sign that says each orange costs 48¢. About how much will a carton cost? ________________
   What strategy did you use? ________________________________

4. Blake has saved 612 papers since his first day of school. His sister has saved 48 papers so far. About how many more papers has Blake saved? ________________
   What strategy did you use? ________________________________

5. Mrs. Martinez bought groceries for $47. Then she bought pet food for $26. She thinks she spent about $100. Is this reasonable? ________________
   What strategy did you use? ________________________________
Skills Practice

Subtract Greater Numbers

Subtract. Check your answer.

1. \[6,387 - 192 = \] 
2. \[\$6,217 - \$3,860 = \] 
3. \[9,817 - 2,087 = \] 
4. \[1,754 - 382 = \] 
5. \[\$3,498 - \$2,567 = \]

6. \[4,891 - 975 = \] 
7. \[\$3,165 - \$1,620 = \] 
8. \[9,315 - 4,928 = \] 
9. \[\$4,046 - 2,995 = \] 
10. \[6,635 - 669 = \]

11. \[5,602 - 325 = \] 
12. \[\$8,250 - \$766 = \] 
13. \[3,426 - 2,839 = \] 
14. \[\$5,163 - \$3,886 = \] 
15. \[7,546 - \$787 = \]

16. \[4,008 - 3,912 = \] 
17. \[\$8,270 - \$5,092 = \] 
18. \[5,123 - 987 = \] 
19. \[7,654 - 6,666 = \] 
20. \[\$4,325 - \$998 = \] 
21. \[6,000 - 85 = \] 
22. \[6,200 - 5,375 = \]

ALGEBRA Write \( + \) or \( - \) to make a true number sentence.

24. \[8,734 \bigcirc 4,292 = 4,442 \]
25. \[687 \bigcirc 474 = 1,161 \]
26. \[\$8,132 \bigcirc \$983 = \$9,115 \]
27. \[8,225 \bigcirc 6,334 = 1,891 \]

Solve.

28. On a parade float, there are 3,000 red roses and 1,850 white roses. How many more red roses are there?

29. Of the 4,208 roses on another float, 680 were wilted. How many were not wilted?

__________________________
Subtract. Check your answer.

1. 503 
   \[ \begin{array}{c}
   \underline{503} \\
   - \underline{82}
   \end{array} \]

2. $607 
   \[ \begin{array}{c}
   \underline{607} \\
   - \underline{238}
   \end{array} \]

3. 730 
   \[ \begin{array}{c}
   \underline{730} \\
   - \underline{467}
   \end{array} \]

4. 901 
   \[ \begin{array}{c}
   \underline{901} \\
   - \underline{719}
   \end{array} \]

5. $309 
   \[ \begin{array}{c}
   \underline{309} \\
   - \underline{223}
   \end{array} \]

6. 208 
   \[ \begin{array}{c}
   \underline{208} \\
   - \underline{75}
   \end{array} \]

7. 305 
   \[ \begin{array}{c}
   \underline{305} \\
   - \underline{161}
   \end{array} \]

8. 400 
   \[ \begin{array}{c}
   \underline{400} \\
   - \underline{286}
   \end{array} \]

9. 504 
   \[ \begin{array}{c}
   \underline{504} \\
   - \underline{316}
   \end{array} \]

10. $700 
    \[ \begin{array}{c}
    \underline{700} \\
    - \underline{199}
    \end{array} \]

11. 103 – 45 = ______

12. $901 – $333 = ______

13. 800 – 65 = ______

14. 702 – 618 = ______

15. 205 – 74 = ______

16. 700 – 412 = ______

17. 607 – 31 = ______

18. 800 – 433 = ______

ALGEBRA Use the rule to find the difference.

19. Rule: Subtract 37

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td></td>
</tr>
<tr>
<td>600</td>
<td></td>
</tr>
</tbody>
</table>

20. Rule: Subtract 239

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td></td>
</tr>
<tr>
<td>900</td>
<td></td>
</tr>
<tr>
<td>800</td>
<td></td>
</tr>
</tbody>
</table>

21. Rule: Subtract 89

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>202</td>
<td></td>
</tr>
<tr>
<td>707</td>
<td></td>
</tr>
<tr>
<td>808</td>
<td></td>
</tr>
</tbody>
</table>

Solve.

22. A bag holds 300 seeds. Brandon plants 79 of the seeds. How many seeds are left?
   ______

23. A book about gardening has 504 pages. Amy has read 245 pages so far. How many more pages does she have left to read?
   ______
Skills Practice

Select Addition or Subtraction

Select addition or subtraction and solve.

1. A black spruce tree is 32 feet tall. An Engelmann pine tree is 110 feet tall. How much taller is the Engelmann pine than the black spruce?

2. A live oak tree is 48 feet tall. A California white oak tree is 42 feet taller. How tall is the California white oak?

3. The garden club raises $123 for a community garden. The club spends $78 on supplies. How much money does the garden club have left?

4. Nadia’s garden has a length of 45 feet and a width of 32 feet. How much longer is the length than the width?

Solve.

5. Joey plants 15 pumpkin seeds, 21 squash seeds, and 13 tomato seeds in his garden. How many seeds does Joey plant altogether?

6. A maple tree’s leaves change color in the fall. Suppose a maple tree has 309 leaves. 171 turn red, 57 turn orange, and the rest of the leaves turn brown. How many leaves turn brown?
Use counters to model each array. Solve.

1. 

2. 

3. 

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

4. $2 \times 3 = 6$
   \[ \square \times 2 = 6 \]

5. $5 \times 0 = 0$
   \[ \square \times 5 = 0 \]

6. $8 \times 6 = 48$
   \[ 6 \times \square = 48 \]

7. $7 \times 4 = 28$
   \[ \square \times 7 = 28 \]

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

9. $5 \times 9 = 45$
   \[ 9 \times \square = 45 \]

10. $8 \times 3 = 24$
    \[ 3 \times \square = 24 \]

11. $9 \times 4 = 36$
    \[ \square \times 9 = 36 \]

12. $1 \times 8 = 8$
    \[ 8 \times \square = 8 \]

13. $7 \times 8 = 56$
    \[ \square \times 7 = 56 \]

14. $6 \times 7 = 42$
    \[ \square \times 6 = 42 \]

15. $9 \times 6 = 54$
    \[ 6 \times \square = 54 \]
Skills Practice

Multiply by 2

Model an array or draw a picture to multiply.

1. \(7 \times 2\)  
2. \(9 \times 2\)  
3. \(4 \times 2\)  
4. \(2 \times 7\)  
5. \(5 \times 2\)  
6. \(6 \times 2\)  
7. \(2 \times 1\)  
8. \(2 \times 9\)  
9. \(2 \times 2\)  
10. \(8 \times 2\)  
11. \(2 \times 6\)  
12. \(2 \times 4\)

Write a multiplication sentence for each situation. Then solve.

31. The dancers in a ballet class rehearse for 3 hours each day. For how many hours will they rehearse from Tuesday through Saturday?

32. The beginner ballet class meets for 6 weeks Tuesday through Saturday. For how many days does the ballet class meet?
Skills Practice
Multiply by 4

Use models or draw a picture to multiply.

1. \(1 \times 4\)  2. \(8 \times 4\)  3. \(4 \times 2\)  4. \(5 \times 4\)  5. \(4 \times 9\)  6. \(4 \times 6\)

7. \(2 \times 4 = \)  8. \(4 \times 6 = \)  9. \(4 \times 4 = \)

10. \(8 \times 4 = \)  11. \(5 \times 4 = \)  12. \(7 \times 4 = \)

13. \(2 \times 4 = \)  14. \(6 \times 4 = \)  15. \(4 \times 5 = \)

16. \(4 \times 7 = \)  17. \(9 \times 4 = \)  18. \(4 \times 8 = \)

19. \(3 \times 4 = \)  20. \(4 \times 3 = \)  21. \(1 \times 4 = \)

22. \(4 \times 9 = \)  23. \(3 \times 4 = \)  24. \(4 \times 7 = \)

Write a multiplication sentence for each situation. Then solve.

25. There are 4 rows of 9 chairs in the room. How many chairs are in the room?

26. There are 4 rows of 7 students in a class photograph. How many students are in the photograph?
Solve. If there is missing information, tell what facts you need to solve the problems. If there is extra information, write it on the line provided.

1. Annie is at basketball practice from 2:45 P.M. to 4:15 P.M. Fifteen minutes after practice ends, Annie starts her homework. At what time does Annie finish her homework?

2. Allie goes to visit a friend at 3:00 P.M. She stays for 1 hour and then walks to the library. She gets to the library at 4:20 P.M. Allie reads a mystery book. How long is the walk from her friend’s house to the library?

3. Brandy ate dinner from 7:00 P.M. to 7:45 P.M. Then she read until 8:30 P.M. After that, she watched television until 9:00 P.M. How long did Brandy read?

4. Miguel goes to a movie that starts at 3:30 P.M. Right after the movie ends, Miguel walks home. Miguel gets home at 6:25 P.M. How long does the walk take?
Skills Practice

Multiply by 5

Use counters to model or draw a picture to multiply.

1. $5 \times 2$
2. $5 \times 9$
3. $10 \times 5$
4. $5 \times 5$
5. $8 \times 5$

6. $3 \times 5$
7. $5 \times 8$
8. $5 \times 6$
9. $7 \times 5$
10. $9 \times 5$

11. $5 \times 7$
12. $4 \times 5$
13. $2 \times 5$

14. If there are 10 students and each student pays $5 to a fundraiser, how much total money will they donate?

15. For a craft you will each need 5 eggs. If there are 9 students, how many dozen eggs will you need? How many eggs are left over?

16. You decide that you want to win a stuffed toy at the fair. For each balloon game that you win, you get 5 tickets. The stuffed toy is worth 65 tickets. How many games will you need to win if you start with 10 tickets?

ALGEBRA Find each missing number.

17. $5 \times \_ = 55$
18. $\_ \times 5 = 30$
19. $5 \times \_ = 25$
Skills Practice

Multiply by 10

Use patterns or models to multiply.

1. \(10 \times 3\)  
2. \(10 \times 6\)  
3. \(0 \times 10\)  
4. \(10 \times 8\)  
5. \(10 \times 1\)

6. \(10 \times 4\)  
7. \(2 \times 10\)  
8. \(10 \times 5\)  
9. \(10 \times 7\)  
10. \(10 \times 9\)

11. \(10 \times 2 = \) _____  
12. \(10 \times 6 = \) _____  
13. \(8 \times 10 = \) _____  
14. \(10 \times 10 = \) _____  
15. \(4 \times 10 = \) _____  
16. \(10 \times 7 = \) _____  
17. \(5 \times 10 = \) _____  
18. \(3 \times 10 = \) _____  
19. \(9 \times 10 = \) _____

Solve. For Exercises 20–22, use data from the pictograph.

20. How many votes did Yellowstone National Park get?


21. How many votes did the Everglades get?


22. How many people voted in the survey?


<table>
<thead>
<tr>
<th>Favorite National Park</th>
<th>Key: Each () stands for 10 votes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellowstone</td>
<td>![Yellowstone]</td>
</tr>
<tr>
<td>Grand Canyon</td>
<td>![Grand Canyon]</td>
</tr>
<tr>
<td>Everglades</td>
<td>![Everglades]</td>
</tr>
</tbody>
</table>
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. If there are 12 alligators and 2 chickens, how many legs are there altogether?

2. Steve bought 4 shirts. Each shirt costs $10. How much change would he receive from $40?

3. Elephants at the zoo each eat 6 bales of hay every day. If there are 3 elephants, how many bales of hay will they eat a day?

4. Christine collects dolls. She has 59 plastic dolls, 48 rubber bugs, 17 pairs of shoes, and 13 cloth dolls. How many total dolls does she have?

5. Annie made lemon squares. She cut each pan into 5 rows with 5 pieces. If she made two pans and ate five squares, how many squares are left?
Name __________________________ Date __________________

Skills Practice
Multiply by 0 and 1

Multiply.

1. \(5 \times 1\) 
2. \(3 \times 0\) 
3. \(8 \times 1\) 
4. \(1 \times 7\) 
5. \(0 \times 1\) 
6. \(1 \times 8\)

7. \(0 \times 5 = _____\) 
8. \(9 \times 0 = _____\) 
9. \(0 \times 4 = _____\)

10. \(1 \times 4 = _____\) 
11. \(1 \times 2 = _____\) 
12. \(9 \times 1 = _____\)

13. \(1 \times 6 = _____\) 
14. \(7 \times 1 = _____\) 
15. \(1 \times 3 = _____\)

16. \(6 \times 0 = _____\) 
17. \(0 \times 2 = _____\) 
18. \(5 \times 1 = _____\)

ALGEBRA  Find each missing number.

19. \(6 \times _____ = 6\) 
20. \(_____ \times 9 = 0\) 
21. \(1 \times _____ = 1\)

22. \(_____ \times 7 = 0\) 
23. \(5 \times _____ = 5\) 
24. \(_____ \times 4 = 0\)

25. \(8 \times _____ = 8\) 
26. \(_____ \times 3 = 0\) 
27. \(2 \times _____ = 0\)

Write a multiplication sentence for each situation.

28. There is 1 row of 7 chairs in the back of the classroom. How many chairs are there?

29. There are 6 chairs around the table but no one is sitting in them. How many people are sitting in the chairs?
Skills Practice

Multiply by 3

Use models or draw a picture to multiply.

1. \(3 \times 10 = \)_____  
2. \(5 \times 3 = \)_____  
3. \(3 \times 8 = \)_____  
4. \(6 \times 3 = \)_____  
5. \(7 \times 3 = \)_____  
6. \(3 \times 9 = \)_____  
7. \(2 \times 3 = \)_____  
8. \(1 \times 3 = \)_____  
9. \(0 \times 3 = \)_____  
10. \(3 \times 7 = \)_____  
11. \(8 \times 3 = \)_____  
12. \(3 \times 6 = \)_____  
13. \(3 \times 5 = \)_____  
14. \(4 \times 3 = \)_____  
15. \(3 \times 4 = \)_____  
16. \(3 \times 8 = \)_____  

ALGEBRA Complete each table.

17. \[
\begin{array}{c|c|c}
\text{Rule: } \times 3 & \text{Input} & \text{Output} \\
3 & & \\
6 & & \\
30 & & \\
0 & & \\
1 & & \\
\end{array}
\]

18. \[
\begin{array}{c|c|c}
\text{Rule: } \times 2 & \text{Input} & \text{Output} \\
& 12 & \\
& 9 & \\
& 6 & \\
& 16 & \\
& 7 & \\
\end{array}
\]

Solve.

19. Jay has 3 bags of fruit. Each bag has 8 pieces of fruit. How many pieces of fruit does Jay have all together?

20. Heather has 3 bags of pretzels. Each bag has 6 pretzels. How many pretzels does Heather have all together?
5–2

Name ___________________________ Date __________________

Skills Practice

Multiply by 6

Multiply.

1. $6 \times 5 = \underline{30}$

2. $6 \times 7 = \underline{42}$

3. $9 \times 6 = \underline{54}$

4. $3 \times 6 = \underline{18}$

5. $6 \times 6 = \underline{36}$

6. $7 \times 6 = \underline{42}$

7. $1 \times 6 = \underline{6}$

8. $6 \times 2 = \underline{12}$

9. $8 \times 6 = \underline{48}$

10. $10 \times 6 = \underline{60}$

11. $3 \times 6 = \underline{18}$

12. $6 \times 4 = \underline{24}$

13. $5 \times 6 = \underline{30}$

14. $6 \times 3 = \underline{18}$

15. $6 \times 8 = \underline{48}$

16. $6 \times 7 = \underline{42}$

17. $4 \times 6 = \underline{24}$

18. $6 \times 9 = \underline{54}$

ALGEBRA Find each missing number.

19. $5 \times \underline{6} = 30$

20. $9 \times \underline{6} = 54$

21. $8 \times \underline{6} = 24$

22. $6 \times \underline{4} = 42$

23. $6 \times \underline{4} = 48$

24. $9 \times \underline{3} = 27$

ALGEBRA Find each rule.

25. Rule: Multiply by \underline{6}

26. Rule: Multiply by \underline{6}

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>36</td>
</tr>
<tr>
<td>7</td>
<td>42</td>
</tr>
<tr>
<td>8</td>
<td>48</td>
</tr>
<tr>
<td>9</td>
<td>54</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>48</td>
</tr>
<tr>
<td>7</td>
<td>56</td>
</tr>
<tr>
<td>8</td>
<td>64</td>
</tr>
</tbody>
</table>
Skills Practice

Problem-Solving Strategy: Look for a Pattern

Solve. Use the look for a pattern strategy.

1. A dancer practices 3 days in a row and then takes one day off to rest. She has a show in two weeks. If she practices on the first 3 days, and takes the 4th day off, how many times will she practice in 14 days?

2. The concert hall offers specials on tickets. When you buy 5 tickets, you get 1 other ticket free. When you buy 10 tickets, you get 2 other tickets free. Lyddie got 4 tickets free. How many tickets did she buy?

3. The marching band lines up in rows. The first row has 2 people. The second row has 4 people. The third row has 6 people. If this pattern continues, how many people will be in the fifth row?

4. The Portsmouth Players perform 2 daytime shows and 3 evening shows per week. Their current play will run for 30 shows. How many of the shows will be daytime shows?

5. Ken takes piano lessons. The 1st week, he practices 20 minutes each day. The 2nd week, he practices 40 minutes each day. The 3rd week, he practices 1 hour each day. If this pattern continues, how many minutes will he practice each day in the 5th week?

6. A theater seat in the orchestra costs $32. A balcony seat costs $14. How much more does an orchestra seat cost than a balcony seat?
Skills Practice
Multiply by 7

Write multiplication sentences.

1. How many train cars?

2. How many fingers?

Use models to multiply.

3. \[7 \times 3\]

4. \[7 \times 6\]

5. \[7 \times 9\]

6. \[7 \times 7\]

7. \[5 \times 7\]

8. \[2 \times 7\]

9. \[7 \times 4\] = 

10. \[7 \times 5\] = 

11. \[7 \times 1\] = 

ALGEBRA Complete the table.

12. Rule: Multiply by 7

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td></td>
</tr>
</tbody>
</table>

13. Rule: Multiply by 7

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>35</td>
</tr>
<tr>
<td>7</td>
<td>63</td>
</tr>
</tbody>
</table>

Solve.

14. Jason read about trains for 2 hours each day for 1 week. How many hours did Jason read?
Skills Practice

Multiply by 8

Use models or known facts to multiply.

1. $7 \times 8 = \underline{56}$
2. $5 \times 8 = \underline{40}$
3. $8 \times 7 = \underline{56}$
4. $8 \times 8 = \underline{64}$
5. $9 \times 8 = \underline{72}$
6. $8 \times 3 = \underline{24}$
7. $4 \times 8 = \underline{32}$
8. $6 \times 8 = \underline{48}$
9. $8 \times 10 = \underline{80}$
10. $8 \times 1 = \underline{8}$

Solve.

27. Justin is going to a baseball game with 7 other boys. The tickets cost $5. How much will it cost for all 8 boys to watch the game?

28. Mike worked 8 hours washing cars for Mr. Smith. Mr. Smith paid him $4 an hour. How much did Mike earn?
Skills Practice

Multiply by 9

Use models or patterns to multiply.

1. \[ 9 \times 3 \]
2. \[ 9 \times 8 \]
3. \[ 4 \times 9 \]
4. \[ 9 \times 1 \]
5. \[ 9 \times 7 \]
6. \[ 9 \times 5 \]
7. \[ 9 \times 2 \]
8. \[ 5 \times 9 \]
9. \[ 9 \times 0 \]
10. \[ 9 \times 9 \]
11. \[ 9 \times 6 \]
12. \[ 8 \times 9 \]
13. \[ 2 \times 9 = \ldots \]
14. \[ 4 \times 9 = \ldots \]
15. \[ 9 \times 6 = \ldots \]
16. \[ 8 \times 9 = \ldots \]
17. \[ 9 \times 1 = \ldots \]
18. \[ 7 \times 9 = \ldots \]
19. \[ 3 \times 9 = \ldots \]
20. \[ 9 \times 9 = \ldots \]
21. \[ 9 \times 0 = \ldots \]
22. \[ 9 \times 1 = \ldots \]
23. \[ 7 \times 9 = \ldots \]
24. \[ 5 \times 9 = \ldots \]
25. \[ 2 \times 9 = \ldots \]
26. \[ 0 \times 9 = \ldots \]
27. \[ 9 \times 4 = \ldots \]
28. \[ 8 \times 6 = \ldots \]
29. \[ 3 \times 8 = \ldots \]
30. \[ 6 \times 7 = \ldots \]
31. \[ 6 \times 5 = \ldots \]
32. \[ 7 \times 3 = \ldots \]
33. \[ 5 \times 7 = \ldots \]
34. \[ 9 \times 3 = \ldots \]
35. \[ 8 \times 7 = \ldots \]
36. \[ 9 \times 6 = \ldots \]

Solve.

37. Jordan saw 9 airplanes fly over his house every day last week. How many airplanes did Jordan see last week?

38. The Sports Cap Company sent 3 caps to each of the 9 starters on a baseball team. How many caps did the company send?
Problem-Solving Investigation: Choose a Strategy

Choose a strategy to solve the problem.

1. On Peapack’s Park Day, volunteers work in the park. One volunteer has 8 boxes of plants. There are 12 plants in each box. If the volunteer puts the plants in rows of 6, how many rows can he make?

2. Peapack’s town square is surrounded by 64 trees. The same number of trees are on each of the 4 sides. The trees on each side are divided into 2 equal rows. How many trees are in each row?

3. Jenny takes a photo of the town square. She makes a square frame for the photo. Each side of the frame is 12 inches long. How many inches around is the frame?

4. Some volunteers are building picnic tables. The tables can seat 4 adults or 6 children. How many adults can sit at 6 tables? How many children?

5. This year, a town sells tickets to the picnic to 252 adults and 518 children. Last year, there were 695 people at the picnic. How many more people are there this year than last year?

6. The third grade class makes a mural for the train station. The mural is 30 feet long. The mural is divided into 6 equal sections. How many feet long is each section?

7. Write a problem that you could solve by drawing a picture or diagram or by writing a division sentence. Share it with others.
5–8

Skills Practice

Multiply by 11 and 12

Use models or patterns to multiply.

1. $1 \times 12 = \underline{\hspace{2cm}}$
2. $12 \times 12 = \underline{\hspace{2cm}}$
3. $11 \times 11 = \underline{\hspace{2cm}}$
4. $4 \times 11 = \underline{\hspace{2cm}}$
5. $8 \times 11 = \underline{\hspace{2cm}}$
6. $10 \times 12 = \underline{\hspace{2cm}}$
7. $3 \times 11 = \underline{\hspace{2cm}}$
8. $3 \times 12 = \underline{\hspace{2cm}}$
9. $2 \times 11 = \underline{\hspace{2cm}}$
10. $12 \times 2 = \underline{\hspace{2cm}}$
11. $11 \times 3 = \underline{\hspace{2cm}}$
12. $5 \times 11 = \underline{\hspace{2cm}}$
13. $4 \times 12 = \underline{\hspace{2cm}}$
14. $11 \times 1 = \underline{\hspace{2cm}}$
15. $12 \times 9 = \underline{\hspace{2cm}}$
16. $10 \times 11 = \underline{\hspace{2cm}}$
17. $11 \times 12 = \underline{\hspace{2cm}}$
18. $8 \times 12 = \underline{\hspace{2cm}}$

ALGEBRA Find each missing number.

19. $2 \times 11 = \underline{\hspace{2cm}}$
20. $\underline{\hspace{2cm}} \times 12 = 48$
21. $7 \times \underline{\hspace{2cm}} = 84$
22. $7 \times \underline{\hspace{2cm}} = 77$
23. $11 \times 12 = \underline{\hspace{2cm}}$
24. $\underline{\hspace{2cm}} \times 12 = 24$

Solve. Use models if needed.

25. Eleven fish are fed from the same bottle of fish pellets. Each fish was fed 8 pellets. Write a number sentence to show how many pellets all of the fish were fed.

26. Andy has a pile of books that he needs to put on his shelves. He has 5 shelves and each shelf can hold 12 books. How many of his books will Andy be able to put on the shelves?
Skills Practice
Algebra: Associative Property

Find each product.

1. \(2 \times 2 \times 6 = \) \[\quad\]
2. \(1 \times 8 \times 4 = \) \[\quad\]
3. \(9 \times 3 \times 2 = \) \[\quad\]
4. \(3 \times 3 \times 1 = \) \[\quad\]
5. \(5 \times 2 \times 5 = \) \[\quad\]
6. \(9 \times 1 \times 0 = \) \[\quad\]
7. \(6 \times 3 \times 1 = \) \[\quad\]
8. \(8 \times 3 \times 2 = \) \[\quad\]
9. \(4 \times \quad \times 4 = 32\) \[\quad\]
10. \(5 \times \quad \times 1 = 45\)
11. \(\quad \times 6 \times 2 = 12\)
12. \(\quad \times 6 \times 1 = 12\)
13. \(3 \times \quad \times 4 = 24\)
14. \(6 \times 9 \times \quad = 0\)
15. \(1 \times \quad \times 3 = 15\)
16. \(5 \times \quad \times 3 = 60\)

Solve.

17. Tony and his friends had a pizza party. They bought 2 pizzas, each cut into 8 slices. Tony put 5 slices of banana pepper on each piece. How many slices of banana peppers did he use?

18. Tony also bought 3 packs of soda in cans. Each pack held 6 cans. How many cans of soda did Tony buy?

19. Which of the following does not belong with the other three?

\((1 \times 3) \times 2 = 2 \times (1 \times 3)\)
\((2 \times 6) \times 1 = 1 \times (4 \times 3)\)
\((6 \times 3) \times 2 = 2 \times (1 \times 0)\)
\(5 \times (3 \times 0) = (0 \times 8) \times 3\)
Skills Practice
Relate Division to Subtraction

Write how many times you need to subtract.

1. \(10 \div 5 = \) 
2. \(21 \div 3 = \) 
3. \(24 \div 4 = \) 
4. \(18 \div 3 = \) 
5. \(30 \div 6 = \) 
6. \(16 \div 2 = \)

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

7. \(7 \div 7 = \) 
8. \(18 \div 2 = \) 
9. \(28 \div 4 = \)
10. \(32 \div 4 = \) 
11. \(27 \div 9 = \) 
12. \(36 \div 4 = \)
13. \(12 \div 2 = \) 
14. \(16 \div 8 = \) 
15. \(25 \div 5 = \)
16. \(28 \div 7 = \) 
17. \(9 \div 9 = \) 
18. \(20 \div 4 = \)

ALGEBRA Find each missing number.

19. \(25 \div \square = 5\)
20. \(\square \div 3 = 4\)
21. \(14 \div \square = 7\)
22. \(\square \div 4 = 8\)

Solve. Write the number sentence to show each quotient.

23. In Mr. Ryan’s class, 18 students write reports on stars. The students work in groups of 3. Each group hands in 1 report. How many reports on stars did the students hand in?

24. Janell pays $20 for 5 astronaut models. Each model costs the same amount. How much does each model cost?
Skills Practice
Relate Division to Multiplication

Use the array to write related multiplication and division sentences.

1. 

2. 

Write the fact family for each set of numbers.

3. 2, 6, 12
   2, 3, 6
   2, 6, 12
   6, 2, 12

4. 3, 7, 21
   3, 7, 21
   3, 7, 21
   7, 3, 21
   21, 3, 7

5. 6, 6, 36
   6, 6, 36
   6, 6, 36
   36, 6, 6
   6, 6, 36

Write \(\times\) or \(\div\) to make each sentence true.

6. 54 \(\bigcirc\) 9 = 6
   6, 9, 54
   6, 54, 9

7. 81 \(\bigcirc\) 9 = 9
   9, 81, 9
   9, 9, 81

8. 9 \(\bigcirc\) 5 = 45
   9, 45, 5
   5, 9, 45

9. 8 \(\bigcirc\) 4 = 32
   8, 32, 4
   4, 8, 32

10. 16 \(\bigcirc\) 8 = 2
    2, 16, 8
    8, 2, 16

11. 10 \(\bigcirc\) 1 = 10
    1, 10, 1
    10, 1, 10
Skills Practice

Problem-Solving Skill: Choose an Operation

Solve. Use the choose an operation strategy.
Name the operation you choose.

1. Paul is making a solar system notebook. Paul draws pictures of 8 planets. He draws 2 planets on each page. How many pages does he use?

2. Leroy has 15 pieces of clay. He will divide the clay equally to make models of 5 planets. How many pieces of clay will Leroy use to make each planet?

3. Naomi had 12 sun stickers. She gave 3 sun stickers to Jose. How many sun stickers does Naomi have left?

4. There are 45 children in the planetarium. They are sitting in rows of 9. How many rows of children are there?

Solve. Use any strategy.

5. Brian draws 16 constellations. He gives away 4 drawings. How many drawings does Brian have left?

6. Janice uses 17 stars to draw the constellation Andromeda. She uses 8 stars to draw the constellation Cepheus. How many more stars did Janice use in drawing Andromeda than in Cepheus?
Skills Practice

Divide by 2

Divide.

1. \(4 \div 2 = \) ____  
2. \(8 \div 2 = \) ____  
3. \(20 \div 2 = \) ____  
4. \(14 \div 2 = \) ____  
5. \(18 \div 2 = \) ____  
6. \(10 \div 2 = \) ____  
7. \(12 \div 2 = \) ____  
8. \(6 \div 2 = \) ____  
9. \(16 \div 2 = \) ____  
10. \(22 \div 2 = \) ____  
11. \(4 \div 2 = \) ____  
12. \(24 \div 2 = \) ____

Use repeated subtraction on a number line to divide.

13. \(2 \overline{)10} = \) ____  
14. \(2 \overline{)8} = \) ____  
15. \(2 \overline{)12} = \) ____  

Divide. Write a related multiplication fact.

16. \(14 \div 2 = \) ________________  
17. \(2 \overline{)10} = \) ________________  
18. \(2 \overline{)20} = \) ________________  
19. \(18 \div 2 = \) ________________

Solve. Write the number sentence to show each quotient.

20. Janet has a small pizza cut into 12 pieces. She wants to share the pizza equally with her friend. How many pieces should she give her friend?
   
   _______________________________________________________

21. There are 18 markers on the table. If Fred and Sam each get an equal amount, how many markers will each one get?
   
   _______________________________________________________

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Skills Practice

Divide by 5

Use models or related facts to divide.

1. \(25 \div 5 = \) _____  
2. \(15 \div 5 = \) _____  
3. \(10 \div 5 = \) _____  
4. \(40 \div 5 = \) _____  
5. \(30 \div 5 = \) _____  
6. \(35 \div 5 = \) _____  
7. \(5 \div 5 = \) _____  
8. \(45 \div 5 = \) _____  
9. \(20 \div 5 = \) _____  
10. \(5 \div 15 = \) 
11. \(5 \div 30 = \) 
12. \(5 \div 35 = \) 
13. \(5 \div 25 = \) 
14. \(5 \div 20 = \) 
15. \(5 \div 5 = \) 
16. \(5 \div 45 = \) 
17. \(5 \div 40 = \) 

ALGEBRA Find each missing number.

18. \(5 \times \underline{ } = 20\)  
19. \(30 \div \underline{ } = 6\)  
20. \(20 - \underline{ } = 15\)  
21. \(\underline{ } \times 5 = 40\)  
22. \(\underline{ } - 5 = 40\)  
23. \(20 \div \underline{ } = 4\)  
24. \((7 + \underline{ }) \div 5 = 3\)  
25. \((25 - 15) \div \underline{ } = 2\)  
26. \((35 + \underline{ }) \div 5 = 7\)  

Solve. Write a number sentence to show each quotient.

27. Rudy spent $30 to buy 5 shuttle models. Each model costs the same amount. How much money did each model cost?

   ________________________________

28. There are 40 people on the Space Rocket ride at the amusement park. Each car holds 5 people. All the cars are full. How many cars does the ride have?

   ________________________________
Skills Practice

Problem-Solving Investigation: Choose a Strategy

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

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

1. Heather is planning a birthday party for her sister. If party favors cost $5 each and 10 people will be at the party, how much will Heather have to spend?

2. Heather chooses 6 red balloons, her brother chooses 4 yellow balloons, and her mother adds 6 blue ones. How many balloons will they have for the party?

3. Heather painted a pattern on the white paper tablecloth. She painted 3 red roses in the center. To the right of the roses, she painted a yellow daisy. To the left of the roses, she painted a bluebell. She repeated this pattern across the whole tablecloth. There are 15 red roses in all. How many yellow daisies are there?

4. Heather’s sister got 16 gifts. She divided her gifts into 2 equal groups, so she could carry them to her room. How many gifts were in each group?
6-7

Skills Practice

Divide by 10

Divide.

1. $70 \div 10 = \underline{7}$
2. $10 \div 10 = \underline{1}$
3. $60 \div 10 = \underline{6}$
4. $20 \div 10 = \underline{2}$
5. $30 \div 10 = \underline{3}$
6. $90 \div 10 = \underline{9}$
7. $50 \div 10 = \underline{5}$
8. $80 \div 10 = \underline{8}$
9. $40 \div 10 = \underline{4}$

10. $10)20$
11. $10)50$
12. $10)10$
13. $10)0$
14. $10)30$

ALGEBRA Solve. Find the missing number.

15. $60 \div \underline{10} = 6$
16. $\underline{8} \div 10 = 9$
17. $80 \div 10 = \underline{8}$
18. $40 \div \underline{10} = 4$
19. $\underline{7} \div 10 = 7$
20. $50 \div 10 = \underline{5}$

Solve. Write a number sentence to show the quotient.

21. Thirty people paddle down the river on rafts. Each raft holds 10 people. How many rafts are on the river?

22. The Christo family spends $70 on 10 fishing permits. How much does each permit cost?

23. You hike a total of 60 miles in 10 days. Each day you hike the same distance. How many miles do you hike each day?

24. A group of park visitors spends $50 for 10 tickets for a raft ride. How much does each ticket cost?
Divide.

1. \(0 \div 3 = \)_____  
2. \(5 \div 5 = \)_____  
3. \(4 \div 1 = \)_____  
4. \(9 \div 1 = \)_____  
5. \(3 \div 3 = \)_____  
6. \(5 \div 1 = \)_____  
7. \(8 \div 8 = \)_____  
8. \(0 \div 5 = \)_____  
9. \(0 \div 7 = \)_____  

10. \(5 \div 0 = \)_____  
11. \(7 \div 7 = \)_____  
12. \(4 \div 0 = \)_____  
13. \(1 \div 6 = \)_____  
14. \(2 \div 0 = \)_____  

15. \(4 \div 4 = \)_____  
16. \(1 \div 4 = \)_____  
17. \(5 \div 5 = \)_____  
18. \(3 \div 0 = \)_____  
19. \(6 \div 6 = \)_____  

ALGEBRA Write \(+, -, \times, \text{ or } \div\) to make the number sentence true.

20. \(7 \bigcirc 7 = 1\)  
21. \(9 \bigcirc 9 = 0\)  
22. \(6 \bigcirc 6 = 12\)  
23. \(5 \bigcirc 1 = 5\)  
24. \(0 \bigcirc 3 = 3\)  
25. \(4 \bigcirc 4 = 1\)  

Solve. Write a number sentence to show each quotient.

26. Jason buys 3 model rockets and shares them with 2 friends. How many rockets does each boy have?

27. Lisa has 3 key chains. If each chain holds 1 key, how many keys does Lisa have?

28. Myra draws and cuts out 9 planets for a class project. She pastes each planet on a separate sheet of paper. How many sheets of paper did Myra use?

29. Alonzo has 1 bookbag. It has 5 key chains on it. How many key chains does Alonzo have?
Skills Practice

Divide by 3

Use models or related facts to divide.

1. $18 \div 3 = \underline{\hspace{1cm}}$
2. $9 \div 3 = \underline{\hspace{1cm}}$
3. $6 \div 3 = \underline{\hspace{1cm}}$

4. $24 \div 3 = \underline{\hspace{1cm}}$
5. $3 \div 3 = \underline{\hspace{1cm}}$
6. $21 \div 3 = \underline{\hspace{1cm}}$

7. $12 \div 3 = \underline{\hspace{1cm}}$
8. $27 \div 3 = \underline{\hspace{1cm}}$
9. $15 \div 3 = \underline{\hspace{1cm}}$

10. $3 \longdiv{12}$
11. $3 \longdiv{18}$
12. $3 \longdiv{6}$
13. $3 \longdiv{21}$

14. $3 \longdiv{27}$
15. $3 \longdiv{3}$
16. $3 \longdiv{15}$
17. $3 \longdiv{24}$

ALGEBRA Copy and Complete each table.

18. Rule: Divide by 3

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
</tr>
</tbody>
</table>

19. Rule: Multiply by 3

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27</td>
</tr>
<tr>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

20. Rule: 

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

Solve.

21. Miss Gomez’s 21 third grade students work in 3 equal groups to make a model of a spacecraft. How many students are in each group?

22. Chuck and his 2 brothers read 15 books about the solar system. Each boy read the same number of books. How many books did each boy read?
Skills Practice

Divide by 4

Use models or related facts to divide.

1. \(12 \div 4 = \)  
2. \(8 \div 4 = \)  
3. \(20 \div 4 = \)  
4. \(28 \div 4 = \)  
5. \(24 \div 4 = \)  
6. \(4 \div 4 = \)  
7. \(36 \div 4 = \)  
8. \(32 \div 4 = \)  
9. \(16 \div 4 = \)  
10. \(4\overline{16}\)  
11. \(4\overline{28}\)  
12. \(4\overline{4}\)  
13. \(4\overline{20}\)  
14. \(4\overline{40}\)  
15. \(4\overline{32}\)  
16. \(4\overline{8}\)  
17. \(4\overline{24}\)  
18. \(4\overline{36}\)  
19. \(4\overline{44}\)

ALGEBRA Complete each table.

20. Rule: Multiply by 4  

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

21. Rule: Divide by 4  

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

22. Rule: ____________________  

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>28</td>
<td>7</td>
</tr>
<tr>
<td>36</td>
<td>9</td>
</tr>
</tbody>
</table>

Solve.

23. How many third-grade students went on the school trip?  

24. There were 32 fourth grade students on the school trip. How many symbols would you show on the graph for the fourth grade students? Draw the symbols on the graph.

School Trip to the Planetarium

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Each figure stands for 4 students.
Skills Practice

Problem-Solving Strategy: Make a Table

Organize the data below in a table.

<table>
<thead>
<tr>
<th>My Favorite Game</th>
<th>Game</th>
<th>Tally</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Computer:</strong> Jessica, Michael, Akiko, Taylor, Aretha, Jamal, Rick, Paula</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Board:</strong> Erica, Lauren, Mark, Andrew, Allison</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Card:</strong> Justin, Carl, Dixie, Ben</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Use your table to solve Exercises 1 and 2.

1. Which game got the most votes?

2. Which game got the fewest votes?

For Exercises 3 and 4, use the shapes that Lorna drew.

3. How many more stars than circles did Lorna draw? Make a table in the box.

4. Suppose that Lorna draws 2 more squares. How many squares will she have then?
### Skills Practice

**Divide by 6 and 7**

**Use models or repeated subtraction to divide.**

1. \(12 \div 6 = \) ______
2. \(35 \div 7 = \) ______
3. \(24 \div 6 = \) ______
4. \(7 \div 7 = \) ______
5. \(30 \div 6 = \) ______
6. \(42 \div 7 = \) ______
7. \(18 \div 6 = \) ______
8. \(56 \div 7 = \) ______
9. \(54 \div 6 = \) ______
10. \(48 \div 6 = \) ______
11. \(21 \div 7 = \) ______
12. \(63 \div 7 = \) ______
13. \(7 \div 28 = \) ______
14. \(6 \div 36 = \) ______
15. \(7 \div 49 = \) ______
16. \(6 \div 24 = \) ______
17. \(6 \div 18 = \) ______
18. \(6 \div 48 = \) ______
19. \(7 \div 63 = \) ______
20. \(7 \div 21 = \) ______
21. \(6 \div 42 = \) ______
22. \(7 \div 14 = \) ______
23. \(7 \div 56 = \) ______
24. \(7 \div 42 = \) ______
25. \(6 \div 54 = \) ______
26. \(6 \div 30 = \) ______
27. \(7 \div 70 = \) ______

**ALGEBRA** Compare. Write \(>\), \(<\), or \(=\).

28. \(28 \div 7 \bigcirc\) 5
29. \(49 \div 7 \bigcirc\) 5
30. \(49 \div 7 \bigcirc\) 8
31. \(7 \div 7 \bigcirc\) 6 \div 6
32. \(42 \div 7 \bigcirc\) 42 \div 7
33. \(35 \div 7 \bigcirc\) 30 \div 6
34. \(24 \div 3 \bigcirc\) 24 \div 6
35. \(56 \div 8 \bigcirc\) 9
36. \(36 \div 6 \bigcirc\) 54 \div 9

**Solve.**

37. Alberto plants 42 tree seedlings in 6 rows. Each row has the same number of tree seedlings. How many tree seedlings does Alberto plant in each row?

38. Six park rangers take 54 people on a tour of Great Bear National Park. Each ranger has the same number of tourists. How many people are in each group?
Skills Practice

Divide by 8 and 9

Use related facts or repeated subtraction to divide.

1. \(18 \div 9 = \) 2. \(24 \div 8 = \) 3. \(36 \div 9 = \)

4. \(72 \div 8 = \) 5. \(54 \div 9 = \) 6. \(40 \div 8 = \)

7. \(8 \div 8 = \) 8. \(27 \div 9 = \) 9. \(81 \div 9 = \)

10. \(8\overline{32}\) 11. \(9\overline{9}\) 12. \(9\overline{45}\) 13. \(8\overline{16}\) 14. \(9\overline{72}\)

15. \(9\overline{63}\) 16. \(8\overline{64}\) 17. \(9\overline{54}\) 18. \(8\overline{56}\) 19. \(8\overline{48}\)

ALGEBRA Complete the tables.

    | Input | 72   | 81   |
    | Output| 7    | 6    |

21.  | Rule: ___________ |
    | Input | 40  | 48  | 56  | 72  |
    | Output| 5   | 6   | 7   | 9   |

Solve.

22. How many third grade students volunteered for the Clean-Up Squad?

____________________________________________________________________

23. If 56 fourth grade students volunteer, how many symbols should you show on the graph? Draw the symbols.

____________________________________________________________________

Volunteer Clean-Up Squad

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>☒ ☒ ☒ ☒</td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Each ☒ stands for 8 students.
Skills Practice

Divide by 11 and 12

Use models to divide.

1. $120 \div 12 = \underline{\hspace{2cm}}$
2. $144 \div 12 = \underline{\hspace{2cm}}$
3. $121 \div 11 = \underline{\hspace{2cm}}$
4. $44 \div 11 = \underline{\hspace{2cm}}$
5. $99 \div 11 = \underline{\hspace{2cm}}$
6. $108 \div 12 = \underline{\hspace{2cm}}$
7. $66 \div 11 = \underline{\hspace{2cm}}$
8. $48 \div 12 = \underline{\hspace{2cm}}$
9. $22 \div 11 = \underline{\hspace{2cm}}$

10. $12)24$
11. $11)77$
12. $11)55$
13. $12)132$
14. $11)11$
15. $12)72$
16. $11)33$
17. $12)12$

ALGEBRA Find each missing number.

18. $22 \div 11 = \underline{\hspace{2cm}}$
19. $\underline{\hspace{2cm}} \div 12 = \underline{\hspace{2cm}}$
20. $96 \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
21. $77 \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
22. $144 \div 12 = \underline{\hspace{2cm}}$
23. $\underline{\hspace{2cm}} \div 12 = \underline{\hspace{2cm}}$

Solve.

24. Eleven friends shared a box of crackers. There were 110 crackers in the box. Each friend got an equal number of crackers. Write a number sentence to show how many crackers each friend received.

25. Beth has a photo album with 84 photos. There are 12 pages in the album. If each page has the same number of photos, how many photos does each page have?
Solve. Use any strategy shown below.

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

1. **ALGEBRA** What is the next number in the pattern?
   50, 48, 46, 44, ______

2. Evita is arranging pictures on the wall. She put 3 pictures on the top row. Then, she put 6 pictures on the second row. She put 9 pictures on the third row. She continues this pattern for 2 more rows. How many pictures does Evita have in all?

3. Russ and Marty bought wood for a tree house. They bought 8 long pieces of wood. Each piece cost $5. How much did they spend altogether?

4. The boys need 24 shorter pieces of wood of equal length. How many parts should they saw each long piece of wood into?

5. The boys bought 4 pounds of nails for $16. They got $4 in change. How much money did they start with?

6. The boys want to buy shingles for their roof, and they have $40 left. If they spend all of their money and get 20 shingles, how much did each shingle cost?
Write expressions based on the pictures.

1. \[ \text{expression} \]

2. \[ \text{expression} \]

3. \[ \text{expression} \]

4. \[ \text{expression} \]

Model each problem. Use a number sentence.

5. George has 12 model airplanes. He dropped 1 and it broke, so he had to throw it away. But, he built 3 new ones. How many model airplanes does George have?

6. Last year, Anna wrote 6 letters to her grandma, 9 letters to her aunt, and 6 letters to her cousin. How many letters did Anna write last year?

7. Maria rented 3 movies a week for 2 weeks. Then she rented 2 movies a week for 2 weeks. How many movies did Maria rent?

8. Lisa played for 3 periods in last week’s basketball game. This week, she played for 4 periods. How many periods of basketball did she play?
Write an expression and a number sentence for each problem. Use models if needed.

1. Martha had 10 polished rocks. She gave 4 of them to friends. How many rocks are left?

2. Kendra won 3 bead bracelets and 2 seashells at the amusement park. How many prizes did she win?

3. There are 8 horses and 13 goats on a farm. How many animals are there?

4. Jason caught 42 fish and threw 13 back. How many fish were left?

Tell whether + or − makes each number sentence true.

5. $8 \bigcirc 1 = 4 + 3$

6. $521 + 10 = 20 \bigcirc 511$

7. $5 - 1 = 3 \bigcirc 1$

8. $701 \bigcirc 23 = 663 + 15$

9. $12 \bigcirc + 5 = 10 + 7$

10. $16 + 14 = 50 \bigcirc 20$

11. $15 \bigcirc 9 = 3 + 3$

12. $75 \bigcirc 9 = 60 + 6$

13. $111 \bigcirc 11 = 50 + 50$

14. $94 \bigcirc 17 = 180 - 69$
Skills Practice

Problem-Solving Strategy: Act It Out

Solve. Use the act it out strategy.

1. Tickets to the Science Center cost $7 for adults and $4 for children. How much does a family of 2 adults and 4 children pay for tickets?

2. The Yuen family stops in the gift shop. Science Center pens cost $3. Science Center buttons cost $1. How much does it cost to buy 2 pens and 3 buttons?

3. Workers at the Science Center rope off a rectangular space. The space has sides that measure 5 meters and 8 meters. How much rope do they need?

4. Lana’s home is 1 mile away from the bus stop. The ride from the bus stop to the Science Center is 6 miles. Lana walks to the bus stop and takes the bus to the Science Center. She returns home the same way. How many miles does she travel in all?

Use any strategy to solve.

5. Nell, Barry, Chet, and Jill are in line for a movie on Alexander Graham Bell. The first person in line is a boy. Barry is ahead of Nell, but not ahead of Jill. List the names in order from first to last in line.

6. Write a problem that you could use a simpler problem to solve. Share it with others.
Skills Practice

**Make A Table to Find a Rule**

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

<table>
<thead>
<tr>
<th></th>
<th>Rule: ___ × 4</th>
<th></th>
<th>Rule: ___</th>
<th></th>
<th>Rule: ___</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Input</td>
<td>Output</td>
<td></td>
<td>Input</td>
<td>Output</td>
</tr>
<tr>
<td>1.</td>
<td>5</td>
<td>20</td>
<td>2.</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>24</td>
<td></td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td></td>
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<td>28</td>
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<td>7</td>
<td>16</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Rule: ___</th>
<th></th>
<th>Rule: ___</th>
<th></th>
<th>Rule: ___</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
<td>24</td>
<td></td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>18</td>
<td></td>
<td>10</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>27</td>
<td></td>
<td>8</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Rule: ___</th>
<th></th>
<th>Rule: ___</th>
<th></th>
<th>Rule: ___</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
<td>28</td>
<td></td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>20</td>
<td></td>
<td>7</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Make a table to find a rule. Then extend the rule to solve.

10. On Monday, there were 5 flowers blooming in the garden. On Tuesday, there were 10 flowers blooming. There were 15 by Wednesday. By Friday, how many flowers were blooming?
Skills Practice
Make Function Tables (+, −)

Complete each function table.

1. Rule: subtract 2
   | Input (△) | Output (□) |
   | 30        |            |
   | 29        |            |
   | 28        |            |
   | 27        |            |

2. Rule: add 3
   | Input (△) | Output (□) |
   | 7         |            |
   | 10        |            |
   | 13        |            |
   | 16        |            |

3. Rule: add 20
   | Input (△) | Output (□) |
   | 0         |            |
   | 5         |            |
   | 10        |            |
   | 15        |            |

4. Rule: subtract 8
   | Input (△) | Output (□) |
   | 32        |            |
   | 24        |            |
   | 16        |            |
   | 8         |            |

5. Rule: add 3
   | Input (△) | Output (□) |
   | 18        |            |
   | 20        |            |
   | 22        |            |
   | 24        |            |

6. Rule: subtract 11
   | Input (△) | Output (□) |
   | 66        |            |
   | 60        |            |
   | 54        |            |
   | 48        |            |

7. Ben is reading a book that has 140 pages. If he reads 20 pages every day, how many pages will he have left to read after 1, 2, 3, and 4 days?
1. Diane is buying a bag. She can choose a large, medium, or small bag. The bag comes in leather or canvas. The bag comes with or without a strap. How many different bags are there?

2. Sandy wants to buy breakfast. She has a choice of a blueberry, a corn, or a bran muffin to eat. She has a choice of apple, orange, or grapefruit juice to drink. How many different breakfasts are possible?

3. Mr. Bevin is flying to Tokyo. The airline offers flights at 8:00 A.M. and 6:00 P.M. On each flight, there are first class, business class, and coach tickets. How many different choices are there for Mr. Bevin?

4. Dan can buy a vest in blue, black, green, or white. He can choose a V-neck or a crew neck. He can also choose a vest with or without a pocket. How many different kinds of vests are there?

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. Jamal spends $379 on plane fare. He spends $450 on a hotel room and other trip expenses. How much money does Jamal spend?
Complete each function table.

1. **Rule:** $\triangle \times 3$
<table>
<thead>
<tr>
<th>Input ($\triangle$)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

2. **Rule:** $\triangle \div 2$
<table>
<thead>
<tr>
<th>Input ($\triangle$)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

3. **Rule:** $\triangle \times 8$
<table>
<thead>
<tr>
<th>Input ($\triangle$)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

4. **Rule:** $\triangle \div 10$
<table>
<thead>
<tr>
<th>Input ($\triangle$)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

5. **Rule:** $\triangle \div 4$
<table>
<thead>
<tr>
<th>Input ($\triangle$)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

6. **Rule:** $\triangle \times 3$
<table>
<thead>
<tr>
<th>Input ($\triangle$)</th>
<th>Output (□)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

7. John can read 20 pages in an hour. How many pages can he read in 2, 3, 4, and 5 hours?
Skills Practice
Length to the Nearest Half Inch

Measure each to the nearest half inch.

1. ____________________________

2. ____________________________

3. Eraser ____________________________

4. ____________________________

Use an inch ruler. Draw a line for each length.

5. 6.5 inches ____________________________

6. 5.5 inches ____________________________

7. 2.5 inches ____________________________

8. 3.5 inches ____________________________
9–2 Skills Practice

**Customary Units of Length**

Use an inch ruler. On a separate piece of paper, draw a line for each length.

1. $2 \frac{1}{2}$ inches
2. $6 \frac{1}{2}$ inches
3. $4 \frac{1}{2}$ inches
4. $5 \frac{1}{2}$ inches
5. $1 \frac{1}{2}$ inches
6. $3 \frac{1}{2}$ inches

Choose the most appropriate unit to measure each length. Write *inch, foot, yard, or mile.*

Then give the measuring tool you might use.

7. length of a crayon

8. height of a door

9. distance from home to school

10. width of your bedroom

11. length of a football field

12. thickness of a book
9–3 Skills Practice

Problem-Solving Strategy: Work Backward

Solve and write a number sentence.

1. A black spruce tree is 32 feet tall. An Engelmann pine tree is 110 feet tall. How much taller is the Engelmann pine than the black spruce?

2. A live oak tree is 48 feet tall. A California white oak tree is 42 feet taller. How tall is the California white oak?

3. The garden club raises $123 for a community garden. The club spends $78 on supplies. How much money does the garden club have left?

4. Maria spends $246 on plants for her garden. She spends $84 on tools. How much money does Maria spend in all?

Solve. Use any strategy.

5. Nadia’s garden has a length of 45 feet and a width of 32 feet. How much longer is the length than the width?

6. Fires can burn forests at a rate of up to 10 miles per hour. How many miles can a forest fire travel in 3 hours?
Estimate. Then measure to the nearest centimeter.

1.

2.

3.

Circle the best estimate.

4. the height of a third grader
   A. 120 cm    B. 120 mm    C. 120 m

5. the length of a race
   F. 100 cm    G. 100 mm    H. 100 m

6. the length of a sneaker
   A. 15 cm    B. 15 mm    C. 15 m
Skills Practice
Measure Perimeters

Find the perimeter of each figure. Use a centimeter ruler.

1. 

2. 

3. 

4. 

5. 

6. 

ALGEBRA  Find the length of the missing side.

7. 

8. 

\[ P = 3 + 6 + 3 + n = 18 \text{ ft} \]

\[ P = 30 + n + 50 = 120 \text{ in.} \]
Find the area of each figure.

1. 

2. 

3. 

4. 

5. 

6. 

Draw a figure having the given area. Use the grid paper below.

7. 12 square units

8. 18 square units

9. 25 square units

10. 30 square units
Use any Problem-Solving strategy shown below to solve.

- Choose an operation
- Make a table
- Guess and check
- Solve a simpler problem

1. Lori went to the store and bought 3 cans of soup, a dozen eggs, a 6 pack of water, a loaf of bread, and 2 cans of tuna fish. Can Lori go through the express line with 10 items or fewer?

2. Pam has two pages of math homework, one page of English, and still needs to study for a spelling test for 15 minutes. If she begins her work at 7:30 and spends about ten minutes on each page of homework, will she be able to be in bed by 8:30?

3. Marta was designing her new garden. For every 2 pink flowering plants, she wanted to plant 3 purple flowering plants. If Marta planted 18 pink flowering plants, how many purple plants would she need?

4. Jorge is hanging some new wallpaper. His walls are 10 feet by 8 feet, and he has 4 walls to cover. If he buys 500 square feet of wallpaper, will he have enough to paper the entire room?

5. Susan and Vanesa are mother’s helpers. They earn $3 an hour and work about 5 hours a week. How much do Vanesa and Susan make together each week?

6. Mercedes rides her bike every day. Beatriz rides her bike twice as much as Mercedes. Emilio bikes 5 miles per day. If Mercedes rides her bike 2 miles a day, how many miles does Beatriz bike?
Skills Practice
Measure Temperatures

Write the temperature in degrees Fahrenheit.

1. 90°F
2. 60°F
3. 30°F
4. 40°F

Tell which temperature is hotter.

5. 27°F or 100°F
6. 90°F or 54°F
7. 46°F or 45°F
8. 88°F or 98°F
9. 14°F or 5°F
10. 37°F or 73°F

Solve.

11. A normal human’s body temperature is 98.6°F. Is this hotter or colder than room temperature?

12. Would you be able to play outside if the temperature was 150°F? Explain.

13. Which is colder, 0°F or 20°F?
14. Which is colder, 10°F or 35°F?
10-1

Skills Practice

Customary Units of Capacity

Write the number that makes each sentence true.

1. 4 pt = _____ c
2. 1 gal = _____ c
3. 2 c = _____ pt
4. 20 pt = _____ c
5. 4 qt = _____ pt
6. 6 c = _____ pt
7. 6 qt = _____ p
8. 16 pt = _____ qt
9. 8 qt = _____ gal
10. _____ pt = 28 c
11. 32 c = _____ p
12. _____ gal = 12 qt
13. _____ qt = 4 pt
14. _____ qt = 4 gal
15. _____ c = 18 pt
16. 8 gal = _____ qt
17. _____ qt = 9 gal
18. 12 pt = _____ c

ALGEBRA Compare. Write >, <, or =.

19. 1 gal ( ) 2 pt
20. 4 qt ( ) 6 pt
21. 12 c ( ) 12 pt
22. 6 c ( ) 2 pt
23. 2 qt ( ) 4 pt
24. 1 qt ( ) 2 pt
25. 2 gal ( ) 10 qt
26. 3 gal ( ) 12 qt
27. 6 pt ( ) 3 qt
28. 6 c ( ) 1 pt
29. 12 qt ( ) 2 gal
30. 20 c ( ) 12 pt

Solve.

31. After the class picnic, Mr. Alvarez picked up 48 empty cups. How many gallons of juice did the class drink during the picnic?

32. Travis is filling a vase with water for some flowers. Is he filling the vase with 4 cups or 4 gallons of water?
1. Pascul mows the lawn every Saturday. He walks about 500 meters each time he mows the lawn. If Pascul mows the lawn four times a month, how far does he walk? What if he mows the lawn 6 times a month?

2. Hugo planted a garden of flowers for his mother. He planted 8 yellow flowers and twice as many purple flowers. Half of each color plant produced double flowers. How many plants produced single-flower blooms?

3. Carmen needs 20 centimeters of yarn to complete a bookmark. She has 15 balls of yarn that each measure 3 meters long. How many bookmarks can Carmen make?

4. Rogelio likes to run around the block. It takes him about 7 minutes. If Rogelio runs around the block 4 times a day, 7 days a week, how much time does he spend running around the block?

5. Paloma had a stack of 4 cards. The stack of cards measured 2 millimeters high. If she had a deck of 52 cards, how many 2-millimeter stacks would she be able to make?

6. Catalina recorded temperatures on Monday. The thermometer rose 1 millimeter for every 2°C. If it was 15°C at the start of the day, and the thermometer had risen a total of 8 millimeters, how many °C was it at the end of the day?
Choose the better estimate.

1. [Image of a bottle]
   - A. 1 mL
   - B. 1 L

2. [Image of a dropper]
   - F. 1 mL
   - G. 1 L

3. [Image of a can]
   - A. 360 mL
   - B. 360 L

4. [Image of a glass]
   - F. 150 mL
   - G. 150 L

5. [Image of a bathtub]
   - A. 50 mL
   - B. 50 L

6. [Image of a bowl]
   - F. 5 mL
   - G. 5 L

Choose the most appropriate unit to measure each capacity. Write milliliter or liter.

7. [Image of a pot]
   - ________________________________

8. [Image of a bottle]
   - ________________________________

9. [Image of a cup]
   - ________________________________
1. Jack got home from school at 4:30 P.M. Before getting home, he practiced baseball for 30 minutes and played with his friends for 45 minutes. What time did he leave school?

2. Coach Mary has a 5-gallon bottle and a 3-gallon bottle. How can she use the bottles to get exactly 14 gallons of water in a cooler?

3. Dan, Michael, and Jerry play different sports. One plays tennis, another plays baseball, and the third swims. Michael and Jerry play sports that use balls. Michael does not play baseball. Who plays baseball?

4. Ellen read 5 pages of a book on the first day, 10 pages the second day, and 15 pages the third day. If the pattern continues, how many pages will she read on the fifth day?

5. A small van has 4 rows of seats. Each row can seat 3 people. How many people can 2 vans hold?

6. Leah is 5 feet tall. Her brother Jamie is 50 inches tall. How much taller is Leah than Jamie?
Skills Practice
Customary Units of Weight

Circle the letter of the better estimate.

1. apples
   A. 1 oz
   B. 1 lb
2. basketball
   A. 20 oz
   F. 20 oz
3. boy
   A. 60 oz
   G. 20 lb
4. watermelon
   F. 5 oz
   G. 5 lb
5. baseball
   A. 5 oz
   B. 5 lb
6. hat
   F. 3 oz
   G. 3 lb
7. sneakers
   A. 1 oz
   B. 1 lb
8. health bar
   F. 1 oz
   G. 1 lb

Order the objects from lightest to heaviest.

9. baseball, soccer ball, golf ball

10. basketball, basketball shirt, basketball player

Compare. Write >, < or =.

11. 18 oz 1 lb
12. 1 lb 16 oz
13. 12 oz 1 lb
## Skills Practice

**Metric Units of Mass**

### Circle the better estimate.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 1. | ![image of a paper clip] | **A.** 1 g  
**B.** 1 kg |
| 2. | ![image of a basketball] | **F.** 600 g  
**G.** 600 kg |
| 3. | ![image of a dog] | **A.** 8 g  
**B.** 8 kg |
| 4. | ![image of a bag with music notes] | **F.** 2 g  
**G.** 2 kg |
| 5. | ![image of a CD] | **A.** 22 g  
**B.** 22 kg |
| 6. | ![image of a computer] | **F.** 20 g  
**G.** 20 kg |

### Choose the most appropriate unit to measure each mass.

Write **gram** or **kilogram**.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 7. | ![image of a watermelon] | **A.** gram  
**B.** kilogram |
| 8. | ![image of a baseball] | **A.** gram  
**B.** kilogram |
| 9. | ![image of a telephone] | **A.** gram  
**B.** kilogram |
Find the volume of each figure.

1. (Diagram of a 3x3x3 cube)

2. (Diagram of a single cube)

3. (Diagram of a 4x4x4 cube)

4. (Diagram of a 5x5x5 cube)

5. (Diagram of a stack of cubes)

6. (Diagram of a stack of cubes)

7. (Diagram of a 6x6x6 cube)

8. (Diagram of a 7x7x7 cube)
Skills Practice

Tell Time

Write the time shown on each digital or analog clock.

1. [Diagram of analog clock]
2. [Diagram of digital clock: 4:28]

Solve.

5. If the minute hand is pointing to the number 3, how many minutes is it showing?
6. If the minute hand is pointing to the number 8, how many minutes is it showing?

7. Pablo starting walking home at 7:45. If it took him 15 minutes to walk home, what time did he arrive?
8. Nina began playing a game at 5:00. It ended 20 minutes later. What time did the game end?
Identify each three-dimensional figure.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 

10. Identify the figures that were used to build this house.

11. Name 3 things in your classroom that are shaped like a rectangular prism.
11–2 Skills Practice
Two-Dimensional Figures

Identify each two-dimensional figure.

1. 

2. 

3. 

4. 

5. It has 6 sides.

6. It has 4 sides. All sides may not be equal.

7. It has 3 sides.

8. It has 8 sides.

9. It has 4 equal sides.

10. It has 5 sides.

Solve.

11. The library at Ladew Mansion in Maryland has 8 sides. What is the shape of the library?

12. A kitchen tile has 4 equal sides. What is the shape of the tile?
**Skills Practice**

*Problem-Solving Strategy: Solve a Simpler Problem*

**Solve. Use the solve a simpler problem strategy.**

1. Tickets to the Science Center cost $7 for adults and $4 for children. How much does a family of 2 adults and 4 children pay for tickets?

2. The Yuen family stops in the gift shop. Science Center pens cost $4. Science Center buttons cost $2. How much does it cost to buy 2 pens and 3 buttons?

3. Workers at the Science Center rope off a rectangular space. The space has sides of 6 meters and 9 meters. How much rope do they need?

4. Lana’s home is 1 mile away from the bus stop. The ride from the bus stop to the Science Center is 6 miles. Lana walks to the bus stop and takes the bus to the Science Center. She returns home the same way. How many miles does she travel in all?

5. Nell, Barry, Chet, and Jill are in line for a movie on Alexander Graham Bell. The first person in line is a boy. Barry is ahead of Nell, but not ahead of Jill. List the names in order from first to last in line.

6. Write a problem that you could use the solve a simpler problem strategy to solve. Share it with others.
Skills Practice
Identify and Extend Geometric Patterns

Identify and extend each pattern.

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

2. \[\text{Hexagon} \triangle \text{Hexagon} \triangle \]

3. \[\text{Wavy line} \text{Wavy line} \]

4. \[\text{Square} \text{Square} \]

Solve.

6. Monique created a pattern using her stamp set. She stamped 1 rectangle, 2 triangles, and then 1 square. If this pattern continues until there are 15 stamps, how many triangles will be used?

7. There is a pattern that repeats a square and a triangle. If each side of each polygon is 2 inches, how many polygons will there be to make the total perimeters 42 inches?
Skills Practice
Identify Congruent Figures

Tell whether each pair of figures is congruent. Write yes or no.

1.  
   [Diagram of two congruent rectangles]

2.  
   [Diagram of two congruent parallelograms]

3.  
   [Diagram of two congruent triangles]

4.  
   [Diagram of two incongruent figures]

5. a square that has sides that are 4 inches, and another square that has sides that measure 4 inches

6. a rectangle and a trapezoid

7. a circle and a triangle

8. One room measure 5 feet by 10 feet. Another room measures 5 feet by 15 feet. Are the rooms congruent? Explain.

9. All of the rectangular windows in Owen’s house are the same size. Owen says they are congruent. Is he correct? Explain.

10. Two swimming pools hold the same amount of water. One is a circular swimming pool and the other is a rectangle. Are they congruent? Explain.
Problem-Solving Investigation: Choose a Strategy

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

1. Matt and Rachel sold apple cider at the craft fair. They sold 80 cups in the first hour, 60 cups in the second hour, and 40 cups in the third hour. If the pattern continues, how many pints did they sell at the end of the fourth hour?

2. Reynaldo bought a bagel and orange juice. Luis bought a muffin and Cristina bought milk. How much did each person spend?

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bagel</td>
<td>$2</td>
</tr>
<tr>
<td>Muffin</td>
<td>$1</td>
</tr>
<tr>
<td>Orange Juice</td>
<td>$1</td>
</tr>
<tr>
<td>Milk</td>
<td>$2</td>
</tr>
</tbody>
</table>

3. Claire was having a party. She invited 4 friends from her ballet class, 3 friends from school, 5 friends were from other places. How many people were invited in all?

4. Megan swims 20 laps each day for a week. Natalie swims twice as much as Megan. At the end of 7 days, how many laps have Natalie and Megan swam in all?

5. There are 7 members of the Swanson family. Each member of the family has 4 towels. How many towels are there all together?

6. What two numbers are missing in the pattern below?

   6, 12, [ ], 24, 30, 36, 42, [ ]
Skills 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. ______

6. ______

7. a baseball bat ______

8. a spoon ______

9. Name three numbers that have line symmetry. ______
Tell what point represents each number on the number line.

1. 35

2. 451

3. 138

Tell what number each letter on the number line represents.

4. Point A = 

5. Point A = 

6. Point R = 

7. Point R = 

8. Point A = 

Skills Practice
Ordered Pairs

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

1. pharmacy _________
2. toy store _________
3. florist _________
4. statue _________

Name the animal at each point.

Use the following grid for Exercises 5–8.

5. (10, 2) _________
6. (4, 5) _________
7. (7, 7) _________
8. (10, 6) _________

Use the following grid for Exercises 9–12.

9. (1, 2) _________
10. (5, 5) _________
11. (7, 3) _________
12. (3, 9) _________

13. How would you locate (4, 5) on a grid?
Skills Practice

Pictographs

Display the set of data in a pictograph.

1. Mike’s Sporting Goods Store

<table>
<thead>
<tr>
<th>Type of Equipment</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennis Racquets</td>
<td>5</td>
</tr>
<tr>
<td>Baseball Bats</td>
<td>6</td>
</tr>
<tr>
<td>Soccer Balls</td>
<td>8</td>
</tr>
<tr>
<td>Hockey Sticks</td>
<td>4</td>
</tr>
</tbody>
</table>

For Exercises 2–5, use the pictograph that shows favorite composers.

<table>
<thead>
<tr>
<th>Favorite Composers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beethoven</td>
</tr>
<tr>
<td>Bach</td>
</tr>
<tr>
<td>Mozart</td>
</tr>
</tbody>
</table>

2. How many people like a composer whose name starts with a “B”?

3. How many people took part in the survey?

4. Do more or less than 6 people like Mozart the best?

5. How many people like Beethoven the best?

6. Collect data to find the number of the students that have a dog, cat, fish, or other pet. Make a pictograph to display the results. Use 1 symbol for every 2 people.

7. Collect data to find the number of students whose favorite subject is math, social studies, science, or spelling. Organize the data in a tally chart. Then display your results in a pictograph.
Create a pictograph to interpret data.

1. A baker makes pies. In 3 hours, she makes 4 apple pies, 6 peach pies, and 2 blueberry pies.

2. A family goes to the beach. In 4 days, they go swimming for 8 hours, surfing for 10 hours, and waterskiing for 5 hours.

3. Mrs. Morales’s class wants to put on a play. 6 students want to act in a comedy, 12 students want to act in a drama, and 5 students want to act out a classic fairytale.

For Exercises 4–8, refer to the pictograph.

![Pictograph Table]

Key: 10 boxes

4. Which material is used the most?

5. How many total boxes of laundry materials are used in a week?

6. Suppose each box of soap costs $4. How much money was spent on soap at the laundromat?

7. Suppose each box of fabric softener costs $3. How much money was spent on fabric softener at the laundromat?

8. How many more boxes of soap were used at the laundromat than dryer sheets?
1. Diane is buying a bag. She can choose a large, medium, or small bag. The bag comes in leather or canvas. The bag comes with or without a strap. How many different bag choices are there?

2. Sandy wants to buy breakfast. She has a choice of a blueberry, corn, or bran muffin to eat. She has a choice of apple, orange, or grapefruit juice to drink. How many different breakfasts are possible?

3. Mr. Bevin is flying to Tokyo. The airline offers flights at 8:00 A.M. and 6:00 P.M. On each flight, there are first class, business class, and coach tickets. How many different choices are there for Mr. Bevin?

4. Dan can buy a vest in blue, black, green, or white. He can choose a V-neck or a crew neck. He can also choose a vest with or without a pocket. How many different kinds of vests are there?

5. Manuel has turkey, ham, and cheese to make sandwiches on whole wheat bread, or on rolls. How many different kinds of sandwiches can Manuel make?

6. Joe wants to make a picture. He can use oil paints, watercolors, or ink. He can make a large or a small picture. How many different choices does Joe have?

7. Write a problem that can be solved with the make a list strategy. Share it with others.
Yoshi finds the following data about the life span of some animals. First he records the data in a chart. Then he starts to make a bar graph.

<table>
<thead>
<tr>
<th>Type of Animal</th>
<th>Average Life Span (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black bear</td>
<td>18</td>
</tr>
<tr>
<td>Domestic cat</td>
<td>12</td>
</tr>
<tr>
<td>Chipmunk</td>
<td>6</td>
</tr>
<tr>
<td>Domestic dog</td>
<td>12</td>
</tr>
<tr>
<td>Cow</td>
<td>15</td>
</tr>
</tbody>
</table>

Use the data in the chart to finish the bar graph. Then answer the questions below.

1. Why does the graph show every second number instead of all the numbers from 0 through 20 in the scale?

   ________________________________

   ________________________________

2. Which animal has the longest average life span? ________________

3. Which animals have the same average life span? ________________

4. How many more years is a cow more likely to live than a cat? ________________

5. Which animal has the shortest life span? ________________
Skills Practice

Interpret Bar Graphs

Use a bar graph to solve.

1. Create a bar graph that shows that three people speak French, five people speak Chinese, and ten people speak Spanish.

2. The title of Samantha’s bar graph is “Time Spent Exercising Each Week.” She surveyed six friends. The longest time spent exercising was 60 minutes. How many bars were shown on her graph? Explain.

3. What is the difference between the number of people who like summer and the number who like winter?

4. How many more people like spring than fall?
Display each set of data in a line plot.

1. Armando was curious to know how much his classmates read at home each week, so he conducted a survey of the number of books each classmate read in a week.

<table>
<thead>
<tr>
<th>Name</th>
<th>Books per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jose</td>
<td>3</td>
</tr>
<tr>
<td>Dani</td>
<td>6</td>
</tr>
<tr>
<td>Juan</td>
<td>2</td>
</tr>
<tr>
<td>Carla</td>
<td>8</td>
</tr>
<tr>
<td>Ana</td>
<td>7</td>
</tr>
<tr>
<td>Fina</td>
<td>6</td>
</tr>
<tr>
<td>Luisa</td>
<td>3</td>
</tr>
<tr>
<td>Rey</td>
<td>9</td>
</tr>
<tr>
<td>Carmen</td>
<td>4</td>
</tr>
<tr>
<td>Angel</td>
<td>4</td>
</tr>
<tr>
<td>Emilio</td>
<td>2</td>
</tr>
<tr>
<td>Hugo</td>
<td>2</td>
</tr>
</tbody>
</table>

2. Colin had a good tomato crop this year. He kept track of how many tomatoes he picked each day for a week.

<table>
<thead>
<tr>
<th>Day</th>
<th>Tally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>5</td>
</tr>
<tr>
<td>Tuesday</td>
<td>7</td>
</tr>
<tr>
<td>Wednesday</td>
<td>12</td>
</tr>
<tr>
<td>Thursday</td>
<td>8</td>
</tr>
<tr>
<td>Friday</td>
<td>7</td>
</tr>
<tr>
<td>Saturday</td>
<td>5</td>
</tr>
<tr>
<td>Sunday</td>
<td>2</td>
</tr>
</tbody>
</table>

3. Mario and Sonia went on a long drive with their parents last weekend and kept track of all the different out-of-state license plates they spotted.

<table>
<thead>
<tr>
<th>State</th>
<th>Tally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oregon</td>
<td>12</td>
</tr>
<tr>
<td>Arizona</td>
<td>8</td>
</tr>
<tr>
<td>Nevada</td>
<td>6</td>
</tr>
<tr>
<td>Washington</td>
<td>5</td>
</tr>
<tr>
<td>Maryland</td>
<td>1</td>
</tr>
</tbody>
</table>
Skills Practice
Identify Probability

Describe the probability. Write certain, likely, unlikely, or impossible.

1. Land on a 4.  
2. Land on a 1.  
3. Land on a 5.  

4. Pick an apple.  
5. Pick a banana.  
6. Pick a cherry.  

7. Pick an odd number.  
8. Pick a 2.  
9. Pick an even number.  

Draw a spinner to represent each statement.

10. Likely but not certain to land on a 5  
11. Unlikely but not impossible to land on red
Use any strategy shown below to solve. Tell what strategy you used.

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

1. The sixth-grade class was having a car wash each weekend during the month of October. The first weekend, they only washed 50 cars. Each weekend they washed 15 more cars. By the end of four weeks, how many cars had they washed?

2. Pittsburgh and Miami played a fantastic season opener. They scored a total of 45 points, but Pittsburgh won by 11. How many points did each team score?

3. Patty is training to hold her breath. When she started, she could hold her breath for about 15 seconds. She worked to hold her breath just two seconds longer each day. After five days, how long could Patty hold her breath?

4. There were 15 sparrows in the backyard and twice as many wrens. How many birds were in the backyard?

5. Marcos has the same chores each week, but he’d like to add a little variety. If Marcos has to empty the trash, water the plants, fill the bird feeder, and sort the recycling. How many different ways can Marcos attack his chores?
Write a fraction that describes the fractional part of the whole that is shaded.

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

Draw a picture for each fraction. Shade the fraction.
Write a fraction that describes the fractional part of the set that is shaded.

1.  

2.  

3.  

4.  

5.  

6.  

7.  

8.  

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

9. Teresa saw eight squirrels. Three of them were brown.  

10. Larry has nine toy trucks. Two of them are red.  

11. Kelly plays a sport every day. Two days a week, she plays tennis.  

12. Pietro has eleven books. Four of them are mysteries.
Problem-Solving Investigation: Choose a Strategy

For Exercises 1-2, use the table below to solve.

<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk dog</td>
<td>Al</td>
<td>Juan</td>
<td>Carla</td>
<td>Al</td>
<td>Juan</td>
</tr>
<tr>
<td>Set table</td>
<td>Juan</td>
<td>Carla</td>
<td>Al</td>
<td>Juan</td>
<td>Carla</td>
</tr>
<tr>
<td>Feed Fish</td>
<td>Carla</td>
<td>Al</td>
<td>Juan</td>
<td>Carla</td>
<td>Al</td>
</tr>
</tbody>
</table>

1. Who will walk the dog on Tuesday and Friday?

2. Who will feed the fish on Monday and Wednesday?

Choose a strategy to solve.

3. Janice, Pat, and Madison each have a pet. One has fish. One has a cat, and the other has a bird. Pat and Madison have pets that do not live underwater. Madison’s pet can fly. Who has the cat?

4. It took 55 minutes for the hairdresser to cut Laura’s hair. If Laura left the hairdresser’s shop at 2:30 P.M., what time did the hairdresser begin?

5. Flowers cost $12 for one dozen or 75¢ each. How much money can you save by buying 12 flowers individually?

6. Carla’s mom drives her to school every day. The school is 8 miles roundtrip from Carla’s house. Carla rides the bus home. How many miles do Carla and her mom travel in one week?
Skills Practice

Find Equivalent Fractions

Use models to complete the equivalent fractions.

1. \[ \frac{2}{8} = \frac{\text{model}}{\text{model}} \]

2. \[ \frac{3}{9} = \frac{\text{model}}{\text{model}} \]

3. \[ \frac{5}{10} = \frac{\text{model}}{\text{model}} \]

Write an equivalent fraction for each fraction.

4. \[ \frac{1}{3} \]

5. \[ \frac{3}{8} \]

6. \[ \frac{2}{5} \]

7. \[ \frac{4}{8} \]

8. \[ \frac{1}{6} \]

9. \[ \frac{4}{12} \]

10. \[ \frac{2}{10} \]

11. \[ \frac{3}{5} \]

12. \[ \frac{3}{6} \]

13. \[ \frac{2}{8} \]

14. \[ \frac{4}{5} \]

15. \[ \frac{6}{8} \]
Skills Practice

Problem-Solving Strategy: **Draw a Picture**

**Solve. Use the draw a picture strategy.**

1. A minibus has 5 rows of seats. Each row has 2 seats. How many people can travel in 5 minibuses?

2. Alicia made 3 bead bracelets. She put 4 different types of beads on each bracelet. She used 2 beads of each type. How many beads did she use?

3. Eric works on his homework for 2 hours a day. He does his homework 4 days a week. How much time does he spend on his homework in 4 weeks?

4. A muffin pan holds 6 muffins. Leilani uses 2 pans for each batch of muffins. How many muffins does she make in 4 batches?

5. There are 8 pieces of fruit in the bowl. There are 2 bananas, 2 apples, and the rest are kiwi. How many kiwi are in the bowl of fruit?

6. There are 3 students in line. Carrie is behind Ernesto and in front of Roger. In what order are the students standing in line?

**Use any strategy to solve.**

7. Darin got home at 8:00 P.M. He was traveling for 1 hour and 15 minutes. At what time did he start traveling?

8. Karen spent $325 for a plane ticket and $190 on a rental car. How much money did she spend altogether?
Skills Practice
Compare and Order Fractions

Compare. Write >, <, or =.

1. \[
\begin{array}{c}
\frac{1}{6} \bigcirc \frac{3}{6}
\end{array}
\]

2. \[
\begin{array}{c}
\frac{4}{8} \bigcirc \frac{1}{2}
\end{array}
\]

3. \[
\begin{array}{c}
\frac{1}{5} \bigcirc \frac{3}{10}
\end{array}
\]

4. \[
\begin{array}{c}
\frac{3}{4} \bigcirc \frac{1}{2}
\end{array}
\]

5. \[
\frac{1}{4} \bigcirc \frac{3}{4}
\]

6. \[
\frac{2}{6} \bigcirc \frac{1}{6}
\]

7. \[
\frac{3}{5} \bigcirc \frac{6}{10}
\]

8. \[
\frac{3}{12} \bigcirc \frac{1}{6}
\]

9. \[
\frac{3}{8} \bigcirc \frac{1}{2}
\]

10. \[
\frac{5}{10} \bigcirc \frac{1}{2}
\]

11. \[
\frac{2}{3} \bigcirc \frac{3}{6}
\]

12. \[
\frac{3}{10} \bigcirc \frac{1}{5}
\]

13. \[
\frac{5}{10} \bigcirc \frac{7}{10}
\]

14. \[
\frac{2}{6} \bigcirc \frac{1}{4}
\]

15. \[
\frac{2}{8} \bigcirc \frac{3}{4}
\]

16. \[
\frac{2}{3} \bigcirc \frac{3}{4}
\]

Order from greatest to least.

17. \[
\frac{1}{8}, \frac{5}{8}, \frac{3}{8}
\]

18. \[
\frac{2}{3}, \frac{2}{9}, \frac{2}{5}
\]

19. \[
\frac{1}{4}, \frac{3}{8}, \frac{2}{3}
\]

20. \[
\frac{1}{2}, \frac{3}{12}, \frac{6}{8}
\]
Name __________________________ Date __________________

13–7

Skills Practice

Locate Fractions on a Number Line

Locate a point on the number line.

1. $\frac{3}{4} = \text{Point } \underline{\quad \quad}$

2. $5\frac{1}{3} = \text{ Point } \underline{\quad \quad}$

3. $\frac{7}{8} = \text{ Point } \underline{\quad \quad}$

4. $1\frac{1}{4} = \text{ Point } \underline{\quad \quad}$

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

5. Point $B = \underline{\quad \quad}$

6. Point $A = \underline{\quad \quad}$

7. Point $Y = \underline{\quad \quad}$

8. Point $X = \underline{\quad \quad}$

Solve.

9. Name the fraction that is between $\frac{5}{9}$ and $\frac{3}{9}$ on a number line.

10. Name the two fractions that would be next to $\frac{3}{6}$ on a number line.

11. Name three fractions that are between $\frac{1}{7}$ and $\frac{6}{7}$ on a number line.

12. Name a fraction that is greater than $\frac{3}{11}$. 

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Skills Practice

Tenths

Write a decimal for each.

1. [Shaded bars]

2. [Shaded bars]

3. [Shaded bars]

4. [Shaded bars]

5. \(\frac{5}{10} = \) __________

6. \(\frac{1}{10} = \) __________

7. \(\frac{9}{10} = \) __________

8. \(\frac{4}{10} = \) __________

9. \(\frac{25}{100} = \) __________

10. \(\frac{16}{100} = \) __________

11. \(\frac{9}{100} = \) __________

12. \(\frac{7}{100} = \) __________

13. six tenths __________

14. eight hundredths __________

15. twenty-three hundredths __________

16. nine hundredths __________

17. 45¢ __________

18. 92¢ __________

19. 2¢ __________

20. 57¢ __________

21. 16¢ __________

22. 39¢ __________

Solve.

23. There are 10 children at the Sunnyside Preschool. Seven children are younger than 4 years old. Write a fraction and a decimal for the number of children who are younger than 4 years old.

24. There are 100 third grade students at Otsego Elementary School. Forty-nine of the students are girls. Write a fraction and a decimal for the number of girls.
Write each as a decimal.

1.  

2.  

3.  

4.  

5. \( \frac{6}{10} = \)  

6. \( \frac{2}{10} = \)  

7. \( \frac{3}{10} = \)  

8. \( \frac{8}{10} = \)  

9. \( \frac{17}{100} = \)  

10. \( \frac{35}{100} = \)  

11. \( \frac{7}{100} = \)  

12. \( \frac{5}{100} = \)  

13. four and nine tenths _____  

14. nine and sixteen hundredths _____  

15. two and three hundredths _____  

16. four dollars and nine cents _____  

17. eight and eight tenths _____  

18. six dollars and forty-one cents _____  

Complete the following skip-counting pattern.

19. 4.51, 4.52, _____ , 4.54  

20. 8.05, 8.15, _____ , _____ , 8.45  

21. 6.21, 6.31, _____ , _____ , 6.61  

22. 1.35, 1.36, _____ , _____ , 1.39
Skills Practice

Problem-Solving Strategy: Work Backward

Solve. Use the work backward strategy.

1. There are 4 rows of seats in the first-class part of a plane. There is a business-class part of the same plane. If there are 4 seats in each row and 40 seats on the entire plane, how many rows of seats are there is the business-class section?

2. Mr. and Mrs. Lopez take several members of the school’s theater club to a show. Adult tickets cost $9 and student tickets cost $5. They spend $38 on tickets. How many students did Mr. and Mrs. Lopez take?

3. Mr. and Mrs. Jefferson take their 3 children to a Revolutionary War fort. Tickets cost $7 for adults and $5 for children. How much do the Jeffertons spend?


5. Mr. Hong takes a bus to the city. He arrives at a business meeting at 9:00 A.M. The bus ride takes 30 minutes. Then he takes a subway to get to a meeting. The subway ride takes 15 minutes. What time did he leave his house?

6. Eight passengers each took 2 suitcases on a plane. 32 passengers each took one suitcase. How many suitcases did the passengers take on the plane in all?
Skills Practice
Decimals, and Money

Write the part of the dollar each amount represents.

1. 

2. 

3. 

4. 

Solve.

5. To buy bubbles, Taye needs 75 cents. He has 6 nickels, 2 dimes, and 1 quarter. Does he have enough?

6. Julie spent \(\frac{7}{10}\) of a dollar on a bag of trail mix. If she gave the clerk \(\frac{3}{4}\) of a dollar, how much change did she get back?

7. Brad has 3 dimes and 2 quarters. How much money does he have altogether?

8. Curtis gives \(\frac{1}{2}\) of all of the money he earns to his parents. If he earns $42, how much will he give his parents?
14–5

Skills Practice

Problem-Solving Investigation: Choose a Strategy

Use any strategy shown below to solve.

- Make an organized list
- Act it out
- Draw a picture
- Use logical reasoning
- Work backward

1. On Peapack’s Park Day, volunteers work in the park. One volunteer has 8 boxes of plants. There are 12 plants in each box. If the volunteer puts the plants in rows of 6, how many rows can he make?

2. Peapack’s town square is surrounded by 64 trees. The same number of trees are on each of the 4 sides. The trees on each side are divided into 2 equal rows. How many trees are in each row?

3. Jenny takes a photo of the town square. She makes a square frame for the photo. Each side of the frame is 12 inches long. How many inches around is the frame?

4. Some volunteers are building picnic tables. The tables can seat 4 adults or 6 children. How many adults can sit at 6 tables? How many children?

5. This year, the town sells tickets to the picnic to 252 adults and 518 children. Last year, there were 695 people at the picnic. How many more people are there this year than last year?

6. The third grade class makes a mural for the train station. The mural is 30 feet long. The mural is divided into 6 equal sections. How many feet long is each section?

7. Write a problem that you could solve by drawing a diagram or by writing a division sentence. Share it with others.
Multiply. Use basic facts and patterns.

1. 

2. 

3. $5 \times 2 = \underline{\hspace{2cm}}$
   $5 \times \underline{\hspace{1cm}} = 100$
   $5 \times \underline{\hspace{1cm}} = 1,000$
   $\underline{\hspace{1cm}} \times 2,000 = 10,000$

4. $3 \times 9 = \underline{\hspace{2cm}}$
   $3 \times \underline{\hspace{1cm}} = 270$
   $3 \times 900 = \underline{\hspace{1cm}}$
   $3 \times \underline{\hspace{1cm}} = 27,000$

Multiply. You may use models.

5. $5 \times 30 = \underline{\hspace{2cm}}$
6. $5 \times 40 = \underline{\hspace{2cm}}$  
7. $4 \times 70 = \underline{\hspace{2cm}}$
8. $3 \times 80 = \underline{\hspace{2cm}}$
9. $6 \times 20 = \underline{\hspace{2cm}}$
10. $3 \times 60 = \underline{\hspace{2cm}}$
11. $8 \times 40 = \underline{\hspace{2cm}}$
12. $9 \times 30 = \underline{\hspace{2cm}}$
13. $6 \times 30 = \underline{\hspace{2cm}}$
14. $3 \times 40 = \underline{\hspace{2cm}}$
15. $80 \times 5 = \underline{\hspace{2cm}}$
16. $60 \times 5 = \underline{\hspace{2cm}}$
17. $400 \times 6 = \underline{\hspace{2cm}}$
18. $700 \times 6 = \underline{\hspace{2cm}}$
19. $8 \times 7,000 = \underline{\hspace{2cm}}$

Solve.

20. A library spends $1,000 each month for new books. How much does it spend in 6 months?

21. Tara puts some of her stickers in a book. She fills 2 pages. Each page has 40 stickers on it. How many stickers are on those pages?
Solve. Use logical reasoning.

1. Coach Jack has a 5-liter bottle and a 4-liter bottle. How can he use the bottles to get exactly 11 liters of water in a cooler?

2. Coach Mary has a 5-gallon bottle and a 3-gallon bottle. How can she use the bottles to get exactly 14 gallons of water in a cooler?

3. Dan, Michael, and Jerry play different sports. One plays tennis, another plays baseball, and the third is on the swimming team. Michael and Jerry play sports that use balls. Michael does not play baseball. Who plays baseball?

4. Don, Shari, Steve, and Ellen are in line for football tickets. The first person in line is a girl. Shari is ahead of Steve, but not ahead of Don. List the names in order from first to last in line.

5. A small van has 4 rows of seats. Each row can seat 3 people. How many people in all can 2 vans hold?

6. Leah is 5 feet tall. Her brother Jamie is 50 inches tall. How much taller is Leah than Jamie?
Skills Practice
Estimate Products

Estimate. Round to the nearest ten.

1. 56 × 1
2. 39 × 0
3. 82 × 1

4. 81 × 7
5. 90 × 1
6. 61 × 8

7. 43 × 5 = _____
8. 9 × 28 = _____
9. 22 × 4 = _____

10. 72 × 4 = _____
11. 6 × 59 = _____
12. 91 × 7 = _____

13. 54 × 6 = _____
14. 7 × 43 = _____
15. 13 × 3 = _____

16. 6 × 17 = _____
17. 85 × 2 = _____
18. 5 × 47 = _____

Estimate. Round to the nearest hundred.

19. 9 × 101 = _____
20. 152 × 3 = _____
21. 6 × 722 = _____

22. 567 × 8 = _____
23. 487 × 5 = _____
24. 2 × 913 = _____

25. 7 × 238 = _____
26. 203 × 4 = _____
27. 1 × 455 = _____

Solve.

28. There are 32 rows of 7 chairs in the movie theater. About how many chairs are there?

29. There are 26 tables in the room and 6 chairs around each table. About how many chairs are there?
Skills Practice
Multiply by a One-Digit Number

Multiply.

1. \[ \frac{73}{3} \times 3 \]
2. \[ \frac{44}{5} \times 5 \]
3. \[ \frac{31}{7} \times 7 \]
4. \[ \frac{68}{8} \times 8 \]
5. \[ \frac{32}{9} \times 9 \]
6. \[ \frac{65}{5} \times 5 \]
7. \[ \frac{33}{6} \times 6 \]
8. \[ \frac{96}{3} \times 3 \]
9. \[ \frac{88}{4} \times 4 \]
10. \[ \frac{74}{5} \times 5 \]
11. \[ \frac{85}{4} \times 4 \]
12. \[ \frac{77}{6} \times 6 \]
13. \[ \frac{97}{2} \times 2 \]
14. \[ \frac{66}{8} \times 8 \]
15. \[ \frac{94}{3} \times 3 \]
16. \[ \frac{44}{4} \times 4 \]
17. \[ \frac{77}{7} \times 7 \]
18. \[ \frac{19}{9} \times 9 \]
19. \[ \frac{38}{8} \times 8 \]
20. \[ \frac{99}{6} \times 6 \]

21. \[ 55 \times 5 = \] 22. \[ 75 \times 6 = \] 23. \[ 8 \times 47 = \]
24. \[ 6 \times 39 = \] 25. \[ 2 \times 98 = \] 26. \[ 84 \times 6 = \]
27. \[ 4 \times 52 = \] 28. \[ 63 \times 7 = \] 29. \[ 29 \times 9 = \]

30. Multiply 63 by 8. _____
31. Multiply 78 by 4. _____
32. Multiply 37 by 6. _____
33. Multiply 45 by 5. _____
34. Multiply 56 by 7. _____
35. Multiply 82 by 3. _____

Solve.

36. A rectangle is 5 tiles wide by 13 tiles high. How many tiles are in the rectangle?

37. Books are stacked in 3 stacks with 17 books in each stack. How many books are in the stacks?
Skills Practice

Use any strategy shown below to solve.

- Use the four-step plan
- Solve a simpler problem
- Make an organized list
- Draw a picture
- Act it out
- Use logical reasoning

1. On Peapack’s Park Day, volunteers work in the park. One volunteer has 8 boxes of plants. There are 12 plants in each box. If the volunteer puts the plants in rows of 6, how many rows can he make?

2. Peapack’s town square is surrounded by 64 trees. The same number of trees are on each of the 4 sides. The trees on each side are divided into 2 equal rows. How many trees are in each row?

3. Jenny takes a photo of the town square. She makes a square frame for the photo. Each side of the frame is 12 inches long. How many inches around is the frame?

4. Some volunteers are building picnic tables. The tables can seat 4 adults or 6 children. How many adults can sit at 6 tables? How many children?

5. This year, the town sells tickets to the picnic to 252 adults and 518 children. Last year, there were 695 people at the picnic. How many more people are there this year than last year?

6. ART The third grade class makes a mural for the train station. The mural is 30 feet long. The mural is divided into 6 equal sections. How many feet long is each section?

7. Write a problem that you could solve by drawing a diagram or by writing a division sentence. Share it with others.
Multiply Two-Digit Numbers

Multiply.

1. \(31 \times 8\) 
2. \(38 \times 5\) 
3. \(28 \times 2\) 
4. \(43 \times 7\) 
5. \(17 \times 8\) 

6. \(24 \times 8\) 
7. \($35 \times 5\) 
8. \(75 \times 2\) 
9. \(25 \times 5\) 
10. \(78 \times 5\) 

11. \(59 \times 2\) 
12. \(14 \times 3\) 
13. \(61 \times 6\) 
14. \(79 \times 3\) 
15. \($44 \times 9\) 

16. \(18 \times 5\) 
17. \(64 \times 2\) 
18. \(36 \times 7\) 

19. \(2 \times $92 = _____\) 
20. \($75 \times 9 = _____\) 
21. \(3 \times 85 = _____\) 

22. \(9 \times $12 = _____\) 
23. \(2 \times 15 = _____\) 
24. \(32 \times 4 = _____\) 

Solve.

25. Becky charges $25 rent for each space at her flea market. If 8 people rent space, how much money does Becky get?

26. Mrs. Sands teaches 9 different classes at the high school. There are 36 students in each class. How many students does she teach?
### Multiply Greater Numbers

#### Multiply.

<p>| | | | | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1.</td>
<td>245</td>
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<tr>
<td>2.</td>
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<td>3.</td>
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<tr>
<td>7.</td>
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<tr>
<td>8.</td>
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<tr>
<td>10.</td>
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<tr>
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<tr>
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<td>20.</td>
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</tr>
</tbody>
</table>

#### Solve.

21. \( 2 \times 638 = \) ______

22. \( 6 \times 704 = \) ______

23. \( 2 \times 225 = \) ______

24. \( 8 \times 1,976 = \) ______

25. \( 4 \times 2,430 = \) ______

26. \( 3 \times 4,099 = \) ______

27. The field trip to the art museum costs $11. Mrs. King collects the money from the 6 students in her group. How much does she collect?

28. Each wing of the museum has 2,500 pieces of art on display. How many pieces of art are displayed in the 4 wings of the museum?