Math At-Home Practice

3rd Grade

*The following can be completed by students to review and practice at home.
Use this chart to practice your 6s count-bys, multiplications, and divisions. Then have your Homework Helper test you.

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<thead>
<tr>
<th>× In Order</th>
<th>× Mixed Up</th>
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<tbody>
<tr>
<td>1 × 6 = 6</td>
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<td>9 × 6 = 54</td>
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<tr>
<td>10 × 6 = 60</td>
<td>6 × 6 = 36</td>
<td>42 ÷ 6 = 7</td>
</tr>
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</table>
Multiply or divide to find the unknown numbers. Then check your answers at the bottom of this page.

1. $5 \times 5 = \underline{\hspace{2cm}}$
2. $12 \div 6 = \underline{\hspace{2cm}}$
3. $7 \times 4 = \underline{\hspace{2cm}}$

4. $42 \div 6 = \underline{\hspace{2cm}}$
5. $6 \times \underline{\hspace{2cm}} = 48$
6. $\frac{6}{1} = \underline{\hspace{2cm}}$

7. $10 \times 6 = \underline{\hspace{2cm}}$
8. $9)27$
9. $6 \times 0 = \underline{\hspace{2cm}}$

10. $20 \div 4 = \underline{\hspace{2cm}}$
11. $6 \times 6 = \underline{\hspace{2cm}}$
12. $18 \div 3 = \underline{\hspace{2cm}}$

13. $9 \times \underline{\hspace{2cm}} = 54$
14. $\frac{60}{6} = \underline{\hspace{2cm}}$
15. $2 \times 7 = \underline{\hspace{2cm}}$

16. $16 \div 4 = \underline{\hspace{2cm}}$
17. $6 \div 6 = \underline{\hspace{2cm}}$
18. $6 \times 7 = \underline{\hspace{2cm}}$

19. $\underline{\hspace{2cm}} \times 7 = 0$
20. $9)45$
21. $1 \times \underline{\hspace{2cm}} = 10$
Find the unknown number.

1. \(6 \times \square = 54\)  
2. \(\square \times 7 = 42\)  
3. \(6 \times \square = 18\)

4. \(\square \div 6 = 8\)  
5. \(36 \div \square = 6\)  
6. \(\square \div 6 = 5\)

Solve each problem.

7. Tim has 6 cats and 4 birds for pets. How many pets does Tim have?

8. Six friends decided to go to the movies. If each person spent $9 to buy tickets, what was the total amount of money spent on tickets?

9. Jing charges $7 for each lawn she mows. Last week, she mowed 6 lawns. How much money did she earn from mowing lawns?

10. The grocery store is having a sale on six-packs of bottled water. Raj bought 48 bottles in all. How many six-packs did he buy?

11. The desks in Ms. Toledo’s classroom are arranged in 6 equal rows. There are 30 desks in the room. How many desks are in each row?

12. Kendall arranged her pennies in an array with 6 rows and 6 columns. How many pennies does Kendall have?
Multiply or divide to find the unknown numbers.

1. \[ 35 \div 5 = \square \]  
2. \[ 2 \times \square = 16 \]  
3. \[ 5 \div 10 = \square \]

Write an equation and solve the problem.

4. Olivia arranges strawberries on her plate. She arranges them in 5 rows and 1 column. How many strawberries does she arrange on her plate?

Read each problem and decide what type of problem it is. Write the letter from the list below. Then write an equation and solve the problem.

a. Array Multiplication  
b. Array Division  
c. Equal Groups of Multiplication  
d. Equal Groups Division with Unknown Group Size  
e. Equal Groups Division with an Unknown Multiplier (number of groups)

5. The store owner has 32 new CDs. She divides them equally among 4 shelves. How many CDs are on each shelf?

6. Evan has 5 notebooks. There are 4 dividers in each notebook. How many dividers are in the notebooks?

7. Stretch Your Thinking Anna has 12 baseballs to display in her store window. She wants to display them in equal groups. List all the ways Anna can display the baseballs in which each group has the same number of baseballs.
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<th>7s</th>
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<td>Count-bys</td>
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<td>9 x 8 = 72</td>
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<td>10 x 8 = 80</td>
<td>112 ÷ 8 = 14</td>
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Multiply or divide to find the unknown numbers.
Then check your answers at the bottom of this page.

1. $6 \times 6 = \square$
2. $20 \div 4 = \square$
3. $9 \times 9 = \square$
4. $32 \div 4 = \square$
5. $9 \times \square = 54$
6. $\frac{30}{10} = \square$
7. $5 \times 0 = \square$
8. $\frac{48}{6} = \square$
9. $3 \times 6 = \square$
10. $6 \div 30$
11. $8 \times 4 = \square$
12. $12 \div 6 = \square$
13. $6 \times \square = 42$
14. $\frac{6}{6} = \square$
15. $3 \times 4 = \square$
16. $15 \div 5 = \square$
17. $10 \div 10 = \square$
18. $2 \times 7 = \square$
19. $\square \times 2 = 10$
20. $6 \div 18$
21. $10 \times \square = 70$
Complete each Unknown Number puzzle.

1. \[
\begin{array}{ccc}
\times & & \ \ \ \ 6 \\
9 & 36 & \\
2 & & \\
12 & 9 \\
\end{array}
\]

2. \[
\begin{array}{ccc}
\times & & \ \ \ \ 6 \\
\ \ \ \ & 28 & 24 \\
\ \ \ \ & 6 & 30 \\
\ \ \ \ & 56 & 48 \\
\end{array}
\]

3. \[
\begin{array}{ccc}
\times & & \ \ \ \ 4 \\
\ \ \ \ & 5 & 30 \\
\ \ \ \ & 7 & 56 \\
\ \ \ \ & & 12 \\
\end{array}
\]

Solve each problem. Label your answers with the correct units.

4. Raul built a rectangular tabletop with a length of 3 feet and a width of 6 feet. What is the area of the tabletop?

5. Li Fong covered the rectangular floor of his tree house with 48 square feet of carpeting. If one side of the floor has a length of 6 feet, what is the length of the adjacent side?

6. Frances wants to paint a rectangular wall that has a width of 8 feet and a height of 9 feet. She has a quart of paint that will cover 85 square feet. What is the area of the wall? Does Frances have enough paint?

7. Willis cut out a paper rectangle with an area of 42 square centimeters. If one side has a length of 6 centimeters, what is the length of the adjacent side?
Complete.

1. $3 \times (5 \times 1) = \square$
2. $(2 \times 5) \times 3 = \square$
3. $(0 \times 4) \times 9 = \square$

4. $22 \times 1 = \square$
5. $4 \times 7 = 7 \times \square = \square$
6. $(3 \times 3) \times 6 = \square$

Read the problem and decide what type of problem it is. Write the letter from the list below. Then write an equation and solve the problem.

a. Array Multiplication
b. Array Division
c. Equal Groups of Multiplication
d. Equal Division with Unknown Group Size
e. Equal Division with an Unknown Multiplier (number of groups)

7. Andrew has 18 invitations to write. If he writes 3 invitations a day, how many days will it take him to finish?

Solve each problem.

8. Brian buys 6 video games. They cost $10 each. How much does he spend on the video games?

9. Sharon plants 48 rose bushes. Each row has 6 rose bushes. How many rows of rose bushes does Sharon plant?

10. Stretch Your Thinking  Ming’s rug has a length that is 2 times its width. The area of the rug is 8 square feet. What is the length and width of Ming’s rug?
Use this chart to practice your 8s count-bys, multiplications, and divisions. Then have your Homework Helper test you.

<table>
<thead>
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<th>× In Order</th>
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<tr>
<td>10 × 8 = 80</td>
<td>7 × 8 = 56</td>
<td>80 ÷ 8 = 10</td>
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</tbody>
</table>
# Home Check Sheet 7: 6s and 8s

<table>
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<tr>
<th>6s Multiplications</th>
<th>6s Divisions</th>
<th>8s Multiplications</th>
<th>8s Divisions</th>
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<tbody>
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<td>10 × 6 = 60</td>
<td>24 / 6 = 4</td>
<td>2 × 8 = 16</td>
<td>72 / 8 = 9</td>
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<td>6 • 4 = 24</td>
<td>48 ÷ 6 = 8</td>
<td>8 • 10 = 80</td>
<td>16 ÷ 8 = 2</td>
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<td>40 / 8 = 5</td>
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<td>6 • 5 = 30</td>
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<td>9 × 6 = 54</td>
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<td>6 • 1 = 6</td>
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<td>4 • 6 = 24</td>
<td>54 ÷ 6 = 9</td>
<td>5 • 8 = 40</td>
<td>48 ÷ 8 = 6</td>
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</table>
Find the unknown number for each Fast-Array Drawing.

1. \[ \begin{array}{c}
\text{8} \\
\text{9} \\
\end{array} \]

2. \[ \begin{array}{c}
\text{2} \\
\text{18} \\
\end{array} \]

3. \[ \begin{array}{c}
\text{7} \\
\text{35} \\
\end{array} \]

Write an equation and solve the problem.

4. Tyrone planted 3 seeds every day for 8 days. How many seeds did Tyrone plant?

5. There are 6 players on a volleyball team. How many players are in a game with 2 teams?

6. Joseph gave his 6 nephews $48 for helping him clean out the garage. The boys divided the money equally. How much money did each boy get?

7. Miki has 3 planting boxes for her flowers. Each box is 4 feet wide and 8 feet long. How much area for planting flowers does Miki have altogether?
Write an equation and solve the problem.  

1. There are 0 tickets available. There are 6 people in line to purchase tickets. How many tickets did they purchase? 

Read each problem and decide what type of problem it is. Write the letter from the list below. Then write an equation and solve the problem. 

a. Array Multiplication  
b. Array Division  
c. Equal Groups of Multiplication  
d. Equal Groups Division with Unknown Group Size  
e. Equal Groups Division with an Unknown Multiplier (number of groups)  

2. Owen orders 9 boxes of hammers for the hardware store. Each box has 10 hammers. How many hammers does Owen order?  

3. Tameka has 12 granola bars for the bake sale. She puts 4 granola bars on each plate. How many plates does she fill?  

Complete each Unknown Number puzzle.  

4.  

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7. Stretch Your Thinking A pizza parlor has 8 different toppings and 3 different cheeses to choose from on the menu. How many pizza combinations are possible if each pizza has 1 topping and 1 cheese?
Solve. Then circle what type it is and what operation you used.

1. The area of a photograph is 15 square inches. If the width of the photograph is 3 inches, what is its length?  
   
   array     equal groups     area     multiplication     division

2. Mrs. Divita divided 64 beetles equally among the 8 students in the science club. How many beetles did each student receive?  
   
   array     equal groups     area     multiplication     division

3. Write your own problem that is the same type as Problem 1.

4. Write your own problem that is the same type as Problem 2.

Find the unknown number for each Fast-Array Drawing.

5. 
   
   9
   
   54

6. 
   
   4
   
   7

7. 
   
   6
   
   36
Write an equation and solve the problem.

1. Lucy puts 54 pictures in her photo album. She puts 9 photos on each page. How many pages does she fill?

2. Chris sets up 8 chairs in each row. He sets up 7 rows. How many chairs does Chris set up?

3. Trina places 4 peaches in each gift basket. She puts together 9 gift baskets to sell in her store. How many peaches does Trina use?

4. Jorge has 15 science fair awards. He wants to display the same number of awards among 3 shelves. How many awards should he put on each shelf?

Find the unknown number for each Fast Array Drawing.

5.  

6.  

7.  

8. **Stretch Your Thinking** Write a real world problem and equation using \( t = 5 \).
Use this chart to practice your 7s count-bys, multiplications, and divisions. Then have your Homework Helper test you.

<table>
<thead>
<tr>
<th>× In Order</th>
<th>× Mixed Up</th>
<th>÷ Mixed Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 × 7 = 7</td>
<td>5 × 7 = 35</td>
<td>56 ÷ 7 = 8</td>
</tr>
<tr>
<td>2 × 7 = 14</td>
<td>1 × 7 = 7</td>
<td>42 ÷ 7 = 6</td>
</tr>
<tr>
<td>3 × 7 = 21</td>
<td>10 × 7 = 70</td>
<td>14 ÷ 7 = 2</td>
</tr>
<tr>
<td>4 × 7 = 28</td>
<td>2 × 7 = 14</td>
<td>7 ÷ 7 = 1</td>
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<tr>
<td>5 × 7 = 35</td>
<td>9 × 7 = 63</td>
<td>70 ÷ 7 = 10</td>
</tr>
<tr>
<td>6 × 7 = 42</td>
<td>3 × 7 = 21</td>
<td>49 ÷ 7 = 7</td>
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<tr>
<td>7 × 7 = 49</td>
<td>8 × 7 = 56</td>
<td>21 ÷ 7 = 3</td>
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<tr>
<td>8 × 7 = 56</td>
<td>4 × 7 = 28</td>
<td>35 ÷ 7 = 5</td>
</tr>
<tr>
<td>9 × 7 = 63</td>
<td>7 × 7 = 49</td>
<td>63 ÷ 7 = 9</td>
</tr>
<tr>
<td>10 × 7 = 70</td>
<td>6 × 7 = 42</td>
<td>28 ÷ 7 = 4</td>
</tr>
</tbody>
</table>
Multiply or divide to find the unknown numbers. Then check your answers at the bottom of this page.

1. \(7 \times 7 = \)   2. \(\frac{64}{8} = \)   3. \(5 \times 5 = \)

4. \(28 \div 7 = \)   5. \(9 \cdot \square = 27\)   6. \(\frac{48}{6} = \)

7. \(\square \times 9 = 63\)   8. \(7 \div 56\)   9. \(10 \times \square = 30\)

10. \(8 \times 5 = \)   11. \(21 \div 3 = \)   12. \(9 \times 2 = \)

13. \(30 \div 6 = \)   14. \(8 \times 5 = \)   15. \(24 \div 3 = \)

16. \(3 \div 21 = \)

17. \(90 \div 9 = \)   18. \(2 \times 7 = \)

19. \(6 \times \square = 42\)   20. \(\frac{10}{2} = \)   21. \(3 \times 9 = \)

Multiply and Divide with 7
Find the unknown number for each Fast-Array Drawing.

1. [Diagram: 7 dots in a 3x3 array, 21]
2. [Diagram: 9 dots in a 3x3 array, 5]
3. [Diagram: 3 dots in a 2x3 array, 5, 35]
4. [Diagram: 9 dots in a 3x3 array, 8]
5. [Diagram: 9 dots in a 3x3 array, 45]
6. [Diagram: 7 dots in a 2x3 array, 49]

Solve. Label your answers.

7. Rachel plans to fence in an area 7 meters long by 7 meters wide for her dog to run in. How much area will her dog have to run in?

8. Shondra has 21 tropical fish. If she divides them evenly among 3 tanks, how many fish will be in each tank?

9. Write a word problem that involves an array and multiplication. Write your problem on a separate sheet of paper for your teacher to collect.
Remembering

Write an equation and solve the problem.  

1. Sara picks 48 apples. She puts 6 apples in each basket. How many baskets does she fill?  

2. Mrs. Lin places 5 pencils at each table in the classroom. There are 7 tables in the classroom. How many pencils does Mrs. Lin place on the tables?  

3. Gibson has an assignment to read 8 pages in his reading book. It takes him 2 minutes to read each page. How many minutes will it take him to finish the reading assignment?  

4. There are 4 paper towel rolls in each package. There are 7 packages of paper towel rolls on the shelf. How many paper towel rolls are on the shelf?  

Solve. Then circle what type it is and what operation you used.  

5. The area of the paper is 80 square inches. If the width of the paper is 8 inches, what is its length?  

6. The desks are in 6 rows, with 5 desks in each row. How many desks are in the classroom?  

array  equal groups  area  array  equal groups  area  
multiplication  division  multiplication  division  

7. Stretch Your Thinking Write a word problem using 7 groups. Solve your problem.  

## Home Check Sheet 8: 7s and Squares

<table>
<thead>
<tr>
<th>7s Multiplications</th>
<th>7s Divisions</th>
<th>Squares Multiplications</th>
<th>Squares Divisions</th>
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</thead>
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<tr>
<td>$4 \times 7 = 28$</td>
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<td>$8 \times 8 = 64$</td>
<td>$81 / 9 = 9$</td>
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<td>$28 \div 7 = 4$</td>
<td>$10 \cdot 10 = 100$</td>
<td>$4 \div 2 = 2$</td>
</tr>
<tr>
<td>$7 \cdot 8 = 56$</td>
<td>$70 / 7 = 10$</td>
<td>$3 \cdot 3 = 9$</td>
<td>$25 / 5 = 5$</td>
</tr>
<tr>
<td>$7 \cdot 7 = 49$</td>
<td>$56 \div 7 = 8$</td>
<td>$9 \cdot 9 = 81$</td>
<td>$1 \div 1 = 1$</td>
</tr>
<tr>
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<td>$42 / 7 = 6$</td>
<td>$4 \cdot 4 = 16$</td>
<td>$100 / 10 = 10$</td>
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<tr>
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<tr>
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<td>$49 \div 7 = 7$</td>
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<td>$9 \div 3 = 3$</td>
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<tr>
<td>$5 \cdot 7 = 35$</td>
<td>$21 / 7 = 3$</td>
<td>$1 \cdot 1 = 1$</td>
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<td>$5 \cdot 5 = 25$</td>
<td>$16 / 4 = 4$</td>
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<td>$100 \div 10 = 10$</td>
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<td>$63 / 7 = 9$</td>
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<td>$49 / 7 = 7$</td>
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<td>$9 \cdot 9 = 81$</td>
<td>$64 / 8 = 8$</td>
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<tr>
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<td>$2 \cdot 2 = 4$</td>
<td>$4 / 2 = 2$</td>
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<tr>
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<td>$28 \div 7 = 4$</td>
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<td>$81 / 9 = 9$</td>
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<tr>
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<td>$35 / 7 = 5$</td>
<td>$5 \cdot 5 = 25$</td>
<td>$25 / 5 = 5$</td>
</tr>
<tr>
<td>$7 \cdot 7 = 49$</td>
<td>$42 \div 7 = 6$</td>
<td>$8 \cdot 8 = 64$</td>
<td>$36 \div 6 = 6$</td>
</tr>
</tbody>
</table>
Multiply or divide to find the unknown numbers. Then check your answers at the bottom of this page.

1. \[
\square \times 6 = 48
\]

2. \[
56 \div 7 = \square
\]

3. \[
10 \times \square = 90
\]

4. \[
64 \div 8 = \square
\]

5. \[
9 \cdot \square = 63
\]

6. \[
\frac{25}{5} = \square
\]

7. \[
8 \times 9 = \square
\]

8. \[
9 \div 36
\]

9. \[
7 \times 7 = \square
\]

10. \[
6 \times \square = 36
\]

11. \[
\frac{32}{4} = \square
\]

12. \[
3 \times 3 = \square
\]

13. \[
30 \div 6 = \square
\]

14. \[
16 \div 4 = \square
\]

15. \[
8 \times 5 = \square
\]

16. \[
6 \times 4 = \square
\]

17. \[
\frac{81}{9} = \square
\]

18. \[
5 \times 7 = \square
\]

19. \[
60 \div 6 = \square
\]

20. \[
7 \times 8 = \square
\]

21. \[
42 \div 7 = \square
\]

22. \[
6 \div 54
\]

23. \[
32 \div 8 = \square
\]

24. \[
9 \times 9 = \square
\]
Study Plan

Write a multiplication equation for each square array.

1. \[
\begin{array}{c}
\bullet \\
\bullet \\
\bullet \\
\end{array}
\]

2. \[
\begin{array}{c}
\bullet \\
\bullet \\
\bullet \\
\bullet \\
\bullet \\
\end{array}
\]

3. \[
\begin{array}{c}
\bullet \\
\bullet \\
\bullet \\
\bullet \\
\bullet \\
\bullet \\
\end{array}
\]

Solve.

4. Julia used 1 foot square stone tiles to make a patio. She laid the tiles in a square, 7 tiles wide by 7 tiles long. What is the area of Julia's new patio?

5. Sal brought 2 dozen apples to a science club meeting. He divided the apples equally among the 8 people there. How many apples did he give each person?

6. Lehie has 21 crystals in her collection. Her brother Tomer has 7 crystals. How many more crystals does Lehie have than Tomer?

7. Emmanuel collected 49 leaves last week. He collected the same number of leaves each day. How many leaves did he collect on Monday?

Complete.

8. \[
\begin{array}{c|c|c}
\times & 6 & 4 \\
--- & --- & --- \\
24 & 32 & \\
\end{array}
\]

9. \[
\begin{array}{c|c|c}
\times & 4 & \\
9 & 45 & 81 \\
\end{array}
\]

10. \[
\begin{array}{c|c|c}
\times & 8 & 3 \\
8 & 56 & \\
\end{array}
\]
Write an equation and solve the problem.

1. There are 5 birch trees in each row at the nursery. There are 9 rows of birch trees. How many birch trees are in the nursery?

2. There are 54 dictionaries in the library. There are 6 shelves of dictionaries. Each shelf has the same number of dictionaries. How many dictionaries are on each shelf?

3. Samuel orders 6 boxes of robots for his store. There are 4 robots in each box. How many robots does Samuel order?

4. A pet store has 24 tiger fish in 3 aquariums. Each aquarium has the same number of tiger fish. How many tiger fish are in each aquarium?

Find the unknown number for each Fast Array Drawing.

5. 

6. 

7. 

8. Stretch Your Thinking Explain two different squares that can be made using the number 9.
# Home Check Sheet 9: 6s, 7s, and 8s

<table>
<thead>
<tr>
<th>6s, 7s, and 8s Multiplications</th>
<th>6s, 7s, and 8s Multiplications</th>
<th>6s, 7s, and 8s Divisions</th>
<th>6s, 7s, and 8s Divisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1 \times 6 = 6$</td>
<td>$0 \times 8 = 0$</td>
<td>$24 \div 6 = 4$</td>
<td>$54 \div 6 = 9$</td>
</tr>
<tr>
<td>$6 \cdot 7 = 42$</td>
<td>$6 \cdot 2 = 12$</td>
<td>$21 \div 7 = 3$</td>
<td>$24 \div 8 = 3$</td>
</tr>
<tr>
<td>$3 \times 8 = 24$</td>
<td>$4 \times 7 = 28$</td>
<td>$16 \div 8 = 2$</td>
<td>$14 \div 7 = 2$</td>
</tr>
<tr>
<td>$6 \times 2 = 12$</td>
<td>$8 \times 3 = 24$</td>
<td>$24 \div 8 = 3$</td>
<td>$32 \div 8 = 4$</td>
</tr>
<tr>
<td>$7 \cdot 5 = 35$</td>
<td>$5 \cdot 6 = 30$</td>
<td>$14 \div 7 = 2$</td>
<td>$18 \div 6 = 3$</td>
</tr>
<tr>
<td>$8 \times 4 = 32$</td>
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<td>$56 \div 7 = 8$</td>
</tr>
<tr>
<td>$6 \times 6 = 36$</td>
<td>$3 \times 8 = 24$</td>
<td>$35 \div 7 = 5$</td>
<td>$40 \div 8 = 5$</td>
</tr>
<tr>
<td>$8 \cdot 7 = 56$</td>
<td>$6 \cdot 4 = 24$</td>
<td>$24 \div 8 = 3$</td>
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<td>$12 \div 6 = 2$</td>
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<td>$8 \cdot 6 = 48$</td>
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### 0s–10s Multiplications

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### 0s–10s Multiplications

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### 0s–10s Divisions

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### 0s–10s Divisions

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<td>64</td>
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<td>15</td>
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<td>36</td>
<td>6</td>
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<tr>
<td>90</td>
<td>9</td>
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<tr>
<td>24</td>
<td>8</td>
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<tr>
<td>6</td>
<td>2</td>
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<tr>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Solve.
1. Sarah’s chickens laid 3 dozen eggs over the weekend. She divided them equally into cartons to give away to her 6 closest neighbors. How many eggs did she put in each carton?

2. Latisha needs 60 square feet of cloth. She has a rectangular piece of cloth that measures 3 feet by 9 feet, and a square piece that measures 5 feet on a side. Does she have enough cloth? If not, how much more does she need?

3. Lucy has 6 sheets of stickers. Each sheet has 8 stickers. How many stickers does Lucy have?

4. A park ranger led 3 groups of hikers. There were 7 people in each group. How many hikers did she lead?

Find the unknown number for each Fast-Array.

5. [Diagram showing a rectangle with 6 dots and 42 dots written nearby]

6. [Diagram showing a rectangle with 6 dots, 54 dots written nearby]

7. [Diagram showing a rectangle with 7 dots, 8 dots written nearby]
Write an equation and solve the problem.

1. Adam has 60 plates. He places 10 plates on each table. How many tables does Adam place plates on?

2. Hailey draws 35 leaves on her tree. She draws 5 leaves on each branch. How many branches are on her tree?

Find the unknown number for each Fast Array Drawing.

3. 6

4. 36

5. 7

Write a multiplication equation for each array.

6.

7.

8.

9. Stretch Your Thinking Draw a picture to show $7 \times 7$. 
Write an equation to solve the problem.

1. Maria created artwork by placing all of her seashells in 4 rows on a wall. In each row, she arranged 8 seashells. How many seashells did Maria collect in all?

2. Arturo collected 18 seashells. He wants to divide the seashells evenly among his 3 best friends. How many seashells will each friend receive?

Use the pictograph and key to solve.

Katie planted pumpkins in the spring. Now she is selling them. This pictograph shows how many pumpkins she sold this weekend.

<table>
<thead>
<tr>
<th>Day</th>
<th>Pictograph</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday</td>
<td>🎃 🎃 🎃 🎃</td>
</tr>
<tr>
<td>Saturday</td>
<td>🎃 🎃 🎃 🎃 🎃 🎃</td>
</tr>
<tr>
<td>Sunday</td>
<td>🎃 🎃 🎃</td>
</tr>
</tbody>
</table>

Key: 🎃 = 6 pumpkins

3. How many pumpkins did Katie sell on Friday?

4. How many more pumpkins did she sell on Saturday than on Friday?

5. How many pumpkins did Katie sell this weekend?
Write an equation and solve the problem.

1. The fitness instructor puts the class into 10 rows. There are 6 people in each row. How many people are in the class?

2. Jared has 40 stars. He puts the same number of stars in each of 5 rows. How many stars are in each row?

Write a multiplication equation for each array.

3. 

4. 

5. 

Solve.

6. Amanda has 8 boxes of markers. Each box has 7 markers. How many markers in all are in the boxes?

7. Alex has 7 shirts. He sews 6 buttons on each shirt. How many buttons does Alex sew on the shirts?

8. Stretch Your Thinking Write a word problem with 16 for the product.
Write an equation and solve the problem.

1. Robert planted 7 trees behind Westwood School. He planted 6 times as many trees in front of the school. How many trees did he plant in front?

2. Nelson collected 58 cans of food during his town’s food drive. Michael collected 67 cans of food. How many cans of food did they collect altogether?

3. On a snorkeling trip, Betina spotted 27 different kinds of fish. Her younger sister Lucia spotted one third as many. How many different kinds of fish did Lucia spot?

4. Arnon earned $27 delivering newspapers last week. He spent $9 on a book about snakes. How much money does he have left?

Write a question to finish each word problem. Then solve the problem.

5. Sonya has 272 coins in her collection. Her brother Erez has 298 coins.
   Question: ___________________________________________________________________
   Solution: __________________________________________________________________

6. Richard folded 32 shirts and stacked them in 4 equal piles.
   Question: __________________________________________________________________
   Solution: __________________________________________________________________
Write an equation and solve the problem.

1. There are 0 students at the show. The theater had 10 rows of seats. How many students are in each row?

2. There are 9 vases. Each vase has 3 flowers. How many flowers in all are in the vases?

Find the unknown number for each Fast Array Drawing.

3. 

4. 

5. 

Write an equation to solve the problem.

6. The principal buys 20 new games. He divides them evenly among the 4 third grade classes. How many games does each class receive?

7. Raj has 4 hooks on his wall. He puts 2 baseball caps on each hook. How many baseball caps does Raj place on the hooks?

8. Stretch Your Thinking Cecelia says she can use addition to solve multiplication problems. Is Cecelia correct? Explain.
Write the first step question and answer. Then solve the problem.

1. The tour boats at the Laguna can carry 8 passengers. Jacob watched 6 boats float by. One of the boats had 2 empty seats. The others were full. How many passengers were on the 6 boats?

2. Jerome bought 8 packs of baseball cards at a garage sale. Each pack had 10 cards. He gave his younger sister 3 cards from each pack. How many cards does Jerome have left?

3. Zoe cut a pan of brownies into 4 rows and 6 columns. She divided them evenly among the 8 people at her scout meeting. How many brownies did each person at her scout meeting get?

4. Four girls helped Mr. Day plant a garden. For their help, he gave the girls $24 to share equally. Later, Mrs. Day gave each girl $2 for helping to clean up. How much money did each girl get?

5. Grace made 7 bouquets for the bridesmaids in a wedding. She put 3 roses, 4 tulips, and 2 lilies in each bouquet. How many flowers did she use in all?
Write an equation and solve the problem.

1. A toy store owner gives 47 balloons to his customers. He has 7 balloons left. How many balloons did he start with?

2. There are 7 rows of sunflowers in the garden. There are 9 sunflowers in each row. How many sunflowers are in the garden?

Use the pictograph and key to solve.

The basketball team kept track of how many points some players on the team scored in the last game. This pictograph shows how many points some players scored.

<table>
<thead>
<tr>
<th></th>
<th>Madison</th>
<th>Heather</th>
<th>Amber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Points</td>
<td>●●●●●●●●●</td>
<td>●●●●●</td>
<td>●●●●●●●●●</td>
</tr>
</tbody>
</table>

Key: ● = 2 points

3. How many points did Amber score?

4. How many more points did Madison score than Heather?

Write an equation and solve the problem.

5. Rita has 90 pages in her notebook. She uses 39 pages. How many pages are left in her notebook?

6. Matt earns $10 for each lawn he mows. How many lawns would he need to mow to earn $80?

7. Stretch Your Thinking Write an equation using subtraction and multiplication in which the answer is 36.
Write an equation and solve the problem.

1. Shamariah collects silk roses. She had 17 silk roses in a vase. Six friends each gave her 3 more roses. How many roses does Shamariah have now?

2. Takala put 9 marbles in the box, Jackie put in 7, and Laird put in 11. Then they divided the marbles evenly among themselves. How many did each person get?

3. A pet store had 9 corn snakes. The snakes laid 8 eggs each. All but 5 of the eggs hatched. How many baby corn snakes does the pet store have?

4. In a paper airplane contest, Amanda’s plane flew 19 ft farther than Darren’s plane. Darren’s plane flew twice as far as Rachel’s plane. Rachel’s plane flew 20 ft. How far did Amanda’s plane fly?

5. Jenna divided 120 daisies into 2 equal groups. Then she divided each group equally into 10 small bunches. She gave her grandmother one small bunch. How many daisies did Jenna give her grandmother?
Write an equation and solve the problem.

1. Lily has 24 classmates. She gives each classmate 1 pencil. How many pencils in all does she give her classmates?

2. There are 50 students on a field trip. The tours let 10 students enter at a time. How many tours will be needed for each student to go on a tour?

Write a question to finish the word problem.
Then solve the problem.

3. The art teacher has 9 boxes of crayons. There are 8 crayons in each box.

Question: ______________________________________________________

Solution: ______________________________________________________

Write the first step question and answer. Then solve the problem.

4. Mr. Garcia buys 8 packages of juice. There are 6 juice boxes in each package. On the field trip, 40 students drink a juice box. How many juice boxes are left?

5. Stretch Your Thinking Write a two step word problem that uses multiplication and subtraction. Then solve the two step problem.

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________
Use a basic multiplication and mental math to complete.

1. $4 \times 4 = \underline{\hspace{2cm}}$
2. $7 \times 3 = \underline{\hspace{2cm}}$
3. $6 \times 9 = \underline{\hspace{2cm}}$
   
4. $4 \times 40 = \underline{\hspace{2cm}}$
5. $70 \times 3 = \underline{\hspace{2cm}}$
6. $6 \times 90 = \underline{\hspace{2cm}}$

7. $8 \times 7 = \underline{\hspace{2cm}}$
8. $4 \times 9 = \underline{\hspace{2cm}}$
9. $2 \times 8 = \underline{\hspace{2cm}}$
   
10. $8 \times 70 = \underline{\hspace{2cm}}$
11. $4 \times 90 = \underline{\hspace{2cm}}$
12. $20 \times 8 = \underline{\hspace{2cm}}$

13. $6 \times 5 = \underline{\hspace{2cm}}$
14. $7 \times 7 = \underline{\hspace{2cm}}$
15. $5 \times 2 = \underline{\hspace{2cm}}$
   
   
16. $60 \times 5 = \underline{\hspace{2cm}}$
17. $7 \times 70 = \underline{\hspace{2cm}}$
18. $50 \times 2 = \underline{\hspace{2cm}}$

Write an equation and solve the problem.

16. Tom bought 3 packages of cards with 20 cards in each package. How many cards did Tom buy altogether?

17. An orchard has 30 rows of apple trees. There are 3 trees in each row. How many apple trees are in the orchard?
Write an equation and solve the problem.

1. The students from Ms. Conner’s class are at a show. They are sitting in 4 rows. There are 9 students in each row. How many students from Ms. Conner’s class are at the show?

2. Jana’s mom bakes 15 muffins for the bake sale. She divides them equally among 3 bags. How many muffins are in each bag?

Write the first step question and answer. Then solve the problem.

3. Gabbie buys 8 packages of plates. There are 8 plates in each package. After the picnic, Gabbie has 4 plates left. How many of Gabbie’s plates were used at the picnic?

4. Colin ties 5 groups of balloons to the fence. There are 3 orange balloons, 2 blue balloons, and 4 green balloons in each group. How many balloons does Colin use?

Write an equation and solve the problem.

5. Leanne has 50 red and 22 yellow chenille sticks. She needs 8 chenille sticks for each craft. How many crafts can she make?

6. Mr. Driscoll has 9 reports to grade. There are 6 pages for each report. He grades 12 pages. How many pages does he still have to grade?

7. Stretch Your Thinking Write three multiplication equations in which the product will have two zeros. Use 50 as one of the factors.
Write an equation and solve the problem.

1. Julia used square tiles to make a design. She laid the tiles in a square, 8 tiles wide by 8 tiles long. Each tile has an area of 1 square inch. What is the area of Julia’s tile design?

2. Bart lives 6 blocks from his grandparents. Melinda lives 8 blocks farther from her grandparents as Bart does. How many blocks does Melinda live from her grandparents?

3. Rose rode the roller coaster 9 times. Leila rode the roller coaster 6 less times than Rose. Joseph rode the roller coaster 5 times as many times as Leila. How many times did Joseph ride the roller coaster?

4. Shondra has 40 roses and 40 lilies. She wants to make 8 bouquets with them, with the same number of each type of flower in each bouquet. How many flowers will be in each bouquet?

5. Willis bought a gallon of paint. He painted a wall that is 9 feet high and 10 feet wide. Then he used the rest of the paint to paint 46 square feet in the hall. How many square feet did the gallon of paint cover?

6. Randall bought 7 computer games at a yard sale. He paid $4 each for 6 of the games, and $5 for the other game. How much money did he spend?
Write an equation and solve the problem.

1. There are 40 students at the picnic. There are 5 picnic tables. The same number of students is at each table. How many students are at each table?

2. Claire puts $2 in her coin purse each day for 7 days. How much money is in her coin purse after 7 days?

Write an equation and solve the problem.

3. There are 4 rows of carrots in the garden. Six carrots are in each row. The farmer picks 3 of the carrots. How many carrots are still in the garden?

4. Darla uses 3 pink roses and 4 yellow tulips to fill each vase. She fills 7 vases. How many flowers does she use?

Use a basic multiplication and mental math to complete.

5. 6 × 3 = _____ 6. 7 × 9 = _____ 7. 4 × 2 = _____
   60 × 3 = _____ 7 × 90 = _____ 40 × 2 = _____

8. 8 × 4 = _____ 9. 2 × 5 = _____ 10. 3 × 4 = _____
   80 × 4 = _____ 2 × 50 = _____ 30 × 4 = _____

11. 5 × 80 = _____ 12. 90 × 8 = _____ 13. 6 × 70 = _____

14. Stretch Your Thinking I am a multiple of 10. My factors include an even number and an odd number. I am greater than 3 × 5 and less than 4 × 7. What number am I?
<table>
<thead>
<tr>
<th>2 × 2</th>
<th>2 × 3</th>
<th>2 × 4</th>
<th>2 × 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hint: What is 3 × 2?</td>
<td>Hint: What is 4 × 2?</td>
<td>Hint: What is 5 × 2?</td>
<td></td>
</tr>
<tr>
<td>2 × 6</td>
<td>2 × 7</td>
<td>2 × 8</td>
<td>2 × 9</td>
</tr>
<tr>
<td>Hint: What is 6 × 2?</td>
<td>Hint: What is 7 × 2?</td>
<td>Hint: What is 8 × 2?</td>
<td>Hint: What is 9 × 2?</td>
</tr>
<tr>
<td>5 × 2</td>
<td>5 × 3</td>
<td>5 × 4</td>
<td>5 × 5</td>
</tr>
<tr>
<td>Hint: What is 2 × 5?</td>
<td>Hint: What is 3 × 5?</td>
<td>Hint: What is 4 × 5?</td>
<td></td>
</tr>
<tr>
<td>5 × 6</td>
<td>5 × 7</td>
<td>5 × 8</td>
<td>5 × 9</td>
</tr>
<tr>
<td>Square Root</td>
<td>Hint: What is ( \Box \times 2 )？</td>
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<td></td>
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<td>-----------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2( \sqrt{10} )</td>
<td>2 ( \sqrt{8} )</td>
<td>2 ( \sqrt{6} )</td>
<td>2 ( \sqrt{4} )</td>
</tr>
<tr>
<td>2 ( \sqrt{18} )</td>
<td>2 ( \sqrt{16} )</td>
<td>2 ( \sqrt{14} )</td>
<td>2 ( \sqrt{12} )</td>
</tr>
<tr>
<td>5 ( \sqrt{25} )</td>
<td>5 ( \sqrt{20} )</td>
<td>5 ( \sqrt{15} )</td>
<td>5 ( \sqrt{10} )</td>
</tr>
<tr>
<td>5 ( \sqrt{45} )</td>
<td>5 ( \sqrt{40} )</td>
<td>5 ( \sqrt{35} )</td>
<td>5 ( \sqrt{30} )</td>
</tr>
</tbody>
</table>
You can write any numbers on the last 8 cards. Use them to practice difficult problems or if you lose a card.
You can write any numbers on the last 8 cards. Use them to practice difficult problems or if you lose a card.
<table>
<thead>
<tr>
<th>3 × 2</th>
<th>3 • 3</th>
<th>3 × 4</th>
<th>3 × 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hint: What is 2 × 3?</td>
<td>Hint: What is 4 × 3?</td>
<td>Hint: What is 5 × 3?</td>
<td></td>
</tr>
<tr>
<td>3 × 6</td>
<td>3 • 7</td>
<td>3 × 8</td>
<td>3 × 9</td>
</tr>
<tr>
<td>Hint: What is 6 × 3?</td>
<td>Hint: What is 7 × 3?</td>
<td>Hint: What is 8 × 3?</td>
<td>Hint: What is 9 × 3?</td>
</tr>
<tr>
<td>4 × 2</td>
<td>4 • 3</td>
<td>4 × 4</td>
<td>4 × 5</td>
</tr>
<tr>
<td>Hint: What is 2 × 4?</td>
<td>Hint: What is 3 × 4?</td>
<td>Hint: What is 5 × 4?</td>
<td></td>
</tr>
<tr>
<td>4 × 6</td>
<td>4 • 7</td>
<td>4 × 8</td>
<td>4 × 9</td>
</tr>
<tr>
<td>Hint: What is 6 × 4?</td>
<td>Hint: What is 7 × 4?</td>
<td>Hint: What is 8 × 4?</td>
<td>Hint: What is 9 × 4?</td>
</tr>
</tbody>
</table>
3\(\sqrt{15}\)  
Hint: What is \(\square \times 3 = 15\)?

3\(\sqrt{12}\)  
Hint: What is \(\square \times 3 = 12\)?

3\(\sqrt{9}\)  
Hint: What is \(\square \times 3 = 9\)?

3\(\sqrt{6}\)  
Hint: What is \(\square \times 3 = 6\)?

3\(\sqrt{27}\)  
Hint: What is \(\square \times 3 = 27\)?

3\(\sqrt{24}\)  
Hint: What is \(\square \times 3 = 24\)?

3\(\sqrt{21}\)  
Hint: What is \(\square \times 3 = 21\)?

3\(\sqrt{18}\)  
Hint: What is \(\square \times 3 = 18\)?

4\(\sqrt{20}\)  
Hint: What is \(\square \times 4 = 20\)?

4\(\sqrt{16}\)  
Hint: What is \(\square \times 4 = 16\)?

4\(\sqrt{12}\)  
Hint: What is \(\square \times 4 = 12\)?

4\(\sqrt{8}\)  
Hint: What is \(\square \times 4 = 8\)?

4\(\sqrt{36}\)  
Hint: What is \(\square \times 4 = 36\)?

4\(\sqrt{32}\)  
Hint: What is \(\square \times 4 = 32\)?

4\(\sqrt{28}\)  
Hint: What is \(\square \times 4 = 28\)?

4\(\sqrt{24}\)  
Hint: What is \(\square \times 4 = 24\)?
<table>
<thead>
<tr>
<th>8 × 2</th>
<th>8 · 3</th>
<th>8 × 4</th>
<th>8 × 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hints:</strong> What is 2 × 8?</td>
<td><strong>Hints:</strong> What is 3 · 8?</td>
<td><strong>Hints:</strong> What is 4 × 8?</td>
<td><strong>Hints:</strong> What is 5 × 8?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8 × 6</th>
<th>8 · 7</th>
<th>8 × 8</th>
<th>8 × 9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hints:</strong> What is 6 × 8?</td>
<td><strong>Hints:</strong> What is 7 · 8?</td>
<td><strong>Hints:</strong> What is 9 × 8?</td>
<td></td>
</tr>
</tbody>
</table>

You can write any numbers on the last 8 cards. Use them to practice difficult problems or if you lose a card.

UNIT 2 LESSON 13
You can write any numbers on the last 8 cards. Use them to practice difficult problems or if you lose a card.
Study Plan

Complete.

1. $6 \times 3 = \underline{\hspace{1cm}}$
2. $7 \times 9 = \underline{\hspace{1cm}}$
3. $4 \times 0 = \underline{\hspace{1cm}}$
4. $30 \div 5 = \underline{\hspace{1cm}}$
5. $18 \div 2 = \underline{\hspace{1cm}}$
6. $70 \div 7 = \underline{\hspace{1cm}}$
7. $36 \div \underline{\hspace{1cm}} = 9$
8. $3 \times \underline{\hspace{1cm}} = 24$
9. $\underline{\hspace{1cm}} \div 8 = 0$
10. $\underline{\hspace{1cm}} \times 7 = 35$
11. $60 = \underline{\hspace{1cm}} \times 6$
12. $4 = 28 \div \underline{\hspace{1cm}}$
13. $72 = 8 \times \underline{\hspace{1cm}}$
14. $2 = \underline{\hspace{1cm}} \div 10$
15. $\underline{\hspace{1cm}} = 45 \div 9$
16. $21 = \underline{\hspace{1cm}} \times 7$
17. $8 = 64 \div \underline{\hspace{1cm}}$
18. $\underline{\hspace{1cm}} \times 374 = 0$

Solve.

19. Using only whole numbers, Nikki wrote as many multiplication equations as she could with 12 as the product. What were her equations?

_________________________________________________________________

_________________________________________________________________

20. Pablo wrote four division equations with 6 as the quotient. What could have been the four division equations that he wrote?

_________________________________________________________________

_________________________________________________________________
Write an equation and solve the problem.

1. Stephen has a stamp collection of 72 stamps. He puts 9 stamps on each page in his album. How many pages does he fill?  

2. There are 6 birdcages at the zoo. Two birds are in each birdcage. How many birds are in the birdcages?

Use a basic multiplication and mental math to complete.

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

\(20 \times 8 = \) 
\(5 \times 90 = \) 
\(30 \times 7 = \) 

6. \(6 \times 4 = \) 
7. \(9 \times 4 = \) 
8. \(5 \times 5 = \) 

\(60 \times 4 = \) 
\(9 \times 40 = \) 
\(50 \times 5 = \) 

9. \(7 \times 80 = \) 
10. \(70 \times 7 = \) 
11. \(6 \times 60 = \)

Write an equation and solve the problem.

12. Max has $12 for the field trip. Sue has $4 less than Max. Ellen has $2 more than Sue. How much money does Ellen have for the field trip?

13. Jeremiah mows 8 lawns. Andy mows 4 fewer lawns than Jeremiah. Sally mows double the number Andy mows. How many lawns does Sally mow?

14. **Stretch Your Thinking** Write three multiplication equations in which the product is 24. Then draw an array for one of your equations.
A zoo kitchen’s weekly grocery list shows the zoo orders 56 pounds of bananas each week. The zoo kitchen uses the same number of pounds of bananas each day.

1. Complete the chart showing the number of pounds of bananas the zoo kitchen has used after each day of the week.

<table>
<thead>
<tr>
<th>Number of Days</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Pounds of Bananas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>56</td>
<td></td>
</tr>
</tbody>
</table>

2. Write an equation to show how to find the number of pounds of bananas the zoo uses in one day.

Write an equation and solve the problem.

3. The zoo uses 10 pounds of apples each day. How many pounds of apples should be on the weekly grocery list?

4. After 6 days, how many pounds of apples does the zoo use?

5. After 6 days, how many more pounds of apples than bananas does the zoo use?

6. How many pounds of bananas and apples altogether does the zoo use each week?
Remembering

Write an equation and solve the problem.

1. Tami uses square tiles to make an array. She places 5 tiles in each row. She makes 5 rows. How many square tiles does she use?

2. Mrs. Gibbs sets up 36 chairs for parents to watch the class performance. She makes 4 rows. How many chairs are in each row?

Write an equation and solve the problem.

3. There are 163 adults and 37 students in the audience. Will 4 packages of 50 programs be enough for each person in the audience to receive a program? Explain.

4. There were 8 rows of picture frames at the store. There are 7 picture frames in each row. Twelve picture frames are sold. How many picture frames are left at the store?

Complete.

5. \( 40 \div 10 = \ldots \)
6. \( \ldots = 8 \times 3 \)
7. \( \ldots \times 4 = 28 \)

8. \( 2 \times 4 = \ldots \)
9. \( \ldots = 8 \times 8 \)
10. \( \ldots = 81 \div 9 \)

11. \( 9 \times 5 = \ldots \)
12. \( 42 \div \ldots = 6 \)
13. \( 9 \times \ldots = 63 \)

14. Stretch Your Thinking  Matt runs four days a week. On the first day he runs 30 minutes. On the second day he runs 5 minutes more than on the first day. On the third day he runs the same number of minutes as the second day. On the fourth day he runs 10 minutes more than the previous day. After Matt runs on the fourth day, how many minutes in all has he run?
Homework

Estimate the length of the line segment in inches. Then measure it to the nearest inch.

1. __________________________

   Estimate: ___________ Actual: ___________

Estimate the length of the line segment in inches. Then measure it to the nearest $\frac{1}{2}$ inch.

2. __________________________

   Estimate: ___________ Actual: ___________

Estimate the length of each line segment in inches. Then measure it to the nearest $\frac{1}{4}$ inch.

3. __________________________

   Estimate: ___________ Actual: ___________

   4. __________________________

   Estimate: ___________ Actual: ___________

Draw a line segment that has the given length.

5. 4 inches
6. $3\frac{1}{4}$ inches
7. $4\frac{1}{2}$ inches
8. $\frac{3}{4}$ inch

9. Marta wants to make 4 necklaces that are the same length. She asks her friends to cut the string for the necklaces 15 paper clips long. Would all the lengths be the same? Explain your thinking.
Solve each equation.

1. \(4 \times 5 = \square\)  
2. \(10 \times 5 = \square\)  
3. \(3 \times 5 = \square\)  
4. \(2 \times 5 = \square\)  
5. \(1 \times 5 = \square\)  
6. \(5 \times 9 = \square\)  
7. \(5 \times 7 = \square\)  
8. \(5 \times 5 = \square\)  
9. \(5 \times 6 = \square\)

Solve each problem.

10. Tommy buys 6 notebooks. They cost $3 each. How much does he spend?

11. Olivia has 42 muffins. She puts the same number of muffins into each of 6 baskets. How many muffins does Olivia put in each basket?

Solve each problem. Label your answers with the correct units.

12. Ms. Emerson has a rectangular shelf that is 5 feet long and 3 feet wide. What is the area of the shelf?

13. Trevor has a rectangular treasure box with an area of 72 square centimeters. If the length of one side is 9 centimeters, what is the length of the adjacent side?

14. **Stretch Your Thinking** Grace has a piece of string that is 8 inches long. She needs to cut the string into four equal pieces, but she does not have a ruler. Explain a way Grace can cut the string into four equal pieces.
Choose the best unit to measure how much each item can hold. Write cup, pint, quart, or gallon.

1. a bathtub ________________
2. a container of orange juice ________________
3. a juice box ________________
4. a small milk carton ________________

Use drawings to represent the problems.

5. Molly bought a container of lemonade that had 6 cups. She drank 2 cups. How many cups of lemonade does she have left?

6. Randy poured 8 quarts of water in a bucket. Then he added 4 more quarts. How many quarts of water are in the bucket?

Solve. Use drawings if you need to.

7. Mrs. Sanders buys 2 gallons of milk each week. How many gallons of milk will she buy in 10 weeks?

8. Brianna bought 64 fluid ounces of her favorite drink. How many 8 fluid-ounce glasses can she fill with the drink?

9. Brian's aquarium holds 16 gallons of water. He uses 2-gallon containers of water to fill the aquarium. How many containers does he use?

10. The Corner Market sold 24 pints of milk on Monday and 18 pints on Tuesday. How many pints of milk did the market sell on those two days?
Make a math drawing for the problem and label it with a multiplication equation. Then write the answer.

1. Coach Stevens puts 6 cones in each row for physical education class. He makes 4 rows. How many cones does Coach Stevens use?

2. Emily puts stickers in 8 bags, with 5 stickers per bag. How many stickers does Emily use?

Find the unknown number for each Fast Array drawing.

3. \[ \begin{array}{c}
3 \times 8 = 24 \\
\end{array} \]

4. \[ \begin{array}{c}
6 \times 9 = 54 \\
\end{array} \]

5. \[ \begin{array}{c}
4 \times 5 = 20 \\
\end{array} \]

Estimate the length of the line segment in inches. Then measure it to the nearest \( \frac{1}{2} \) inch.

6. Estimate: \[ \_ \_ \_ \_ \_ \_ \_ \] Actual: \[ \_ \_ \_ \_ \_ \_ \]

8. Stretch Your Thinking Write a word problem in which the answer is 6 gallons.
Circle the better estimate.

1. a container of milk  2 L  20 mL  
2. a cup of punch  25 L  250 mL

3. an eyedropper  1 L or 1 mL 
4. a jar of pickles  50 L  500 mL

Choose the unit you would use to measure the liquid volume of each. Write \text{mL} or \text{L}.

5. a container of glue ___  
6. an aquarium ___

Use the drawing to represent and solve the problem.

7. Dinah had a bottle of water that contained 800 milliliters of water. She used 500 milliliters. How much water is left in the bottle?

----------

8. Galen has a fish tank that holds 40 liters of water. He poured 15 liters of water into the tank. How many more liters does he need to add to fill the tank?

----------

Solve.

9. Ben has 4 hummingbird feeders. Each feeder holds 80 milliliters of liquid hummingbird food. How many milliliters of liquid hummingbird food does Ben need?

----------

10. Drew needs 27 liters of punch for a party. It comes in 3 liter containers. How many containers should Drew buy?

----------
Remembering

Make a math drawing for the problem and label it with a multiplication equation. Then write the answer to the problem.

1. Kelly’s garden has 6 rows of tulips. There are 5 tulips in each row. How many tulips are in her garden?

Solve. Then circle what type it is and what operation you used.

2. The area of the rectangular table is 18 square feet. The width of the table is 3 feet. What is its length?

3. The band lines up in 8 rows, with 6 band members in each row. How many band members are there in all?

array  equal groups  area  array  equal groups  area
multiplication  division  multiplication  division

Use the drawing to represent the problem.

4. Elizabeth buys a container of orange juice that has 8 cups. She pours 6 cups into a pitcher. How many cups are left in the container?

5. Stretch Your Thinking Write a word problem that involves subtracting 4 liters. Then solve. Draw a picture to represent your answer.
Choose the unit you would use to measure the weight of each object. Write *ounce* or *pound*.

1. 
2. 
3. 

Choose the unit you would use to measure the mass of each object. Write *gram* or *kilogram*.

4. 
5. 
6. 

Circle the better estimate.

7. a pillow 8 oz 8 lb 8. a stapler 250 g 250 kg
9. a car 1,000 g 1,000 kg 10. a large book 3 lb 30 lb

Solve. Use a drawing if you need to.

11. Steve bought 24 ounces of his favorite cereal. He put equal amounts of the cereal in 4 containers. How many ounces did he put in each container?

12. Beth bought a bag filled with 340 grams of pasta. She used 250 grams. How many grams are left in the bag?

13. There are 8 books in a box. Each book has a mass of 2 kilograms. What is the total mass of the books?

14. Roy bought a 25-pound bag and a 10-pound bag of pet food. How many pounds of pet food did he buy?
Write an equation and solve the problem.

1. The shoe store has a stack of 9 shoeboxes. Two shoes are in each box. How many shoes are in the stack?

2. Mrs. Rak’s class has 35 students. Seven students sit at each table. How many tables of students are there?

Multiply or divide to find the unknown numbers.

3. \(50 \div 10 = \) 
4. \(2 \times \) 
5. \(6 \div 54 = \)

6. \(6 \times 4 = \)
7. \(\frac{49}{7} = \)
8. \(\square \times 4 = 20\)

Use drawings to represent the problems.

9. Meagan has a container that has 700 milliliters of milk. She uses 300 milliliters for a recipe. How much milk is left in the container?

10. Austin puts 5 liters of water in an empty bucket. Miles puts in another 8 liters. How much water is in the bucket now?

11. Stretch Your Thinking Explain how you know whether to choose grams or kilograms when measuring mass. Name an object you would measure using each unit.
Solve. Use drawings if you need to.

1. Carlie had 800 milliliters of water in a container. She poured all but 300 milliliters into a vase. How many milliliters of water did Carlie pour into the vase?

2. Benji bought 2 potatoes that together have a mass of 496 grams. If one potato has a mass of 254 grams, what is the mass of the other potato?

3. An average sized duck egg has a mass of 80 grams. What would be the mass of three duck eggs?

4. Michelle has 4 buckets she uses to water plants. She filled each bucket with 6 liters of water. What is the total liquid volume of all the buckets?

5. A stack of books has a mass of 21 kilograms. If each book in the stack has a mass of 3 kilograms, how many books are in the stack?

6. Martha bought a liter of lemonade. She gave each of her 3 friends 300 milliliters. Did Martha use the whole liter of lemonade? Explain.
Remembering

Multiply or divide to find the unknown numbers.

1. \( \frac{40}{8} = \square \)  2. \( 5 \times \square = 50 \)  3. \( 2 \div 10 = \square \)

4. \( 6 \times 10 = \square \)  5. \( 90 \div 10 = \square \)  6. \( \square \times 4 = 20 \)

Solve.

7. The valet parked 5 rows of cars in the parking lot. He put 5 cars in each row. How many cars did he park?

8. Charlie is making a mosaic picture using 1-centimeter square tiles. He places them in a square, 8 tiles wide by 8 tiles long. What is the area of the mosaic picture?

Choose the unit you would use to measure the weight of each object. Write ounce or pound.

9.  

10.  

11.  

12. Stretch Your Thinking Jake has 12 liters of water. Name four different ways he can divide the water into buckets so each bucket has the same number of liters.
Write the time on the digital clock. Then write how to say the time.

1. [Clock Image]
2. [Clock Image]
3. [Clock Image]
4. [Clock Image]

Draw the hands on the analog clock. Write the time on the digital clock.

5. twenty-eight minutes after four
6. six forty-five
7. quarter to seven

Write the time on the digital clock. Then write how to say the time.

8. [Clock Image]
9. [Clock Image]
10. [Clock Image]
Remembering

Write an equation and solve the problem.

1. The pet store has 7 aquariums. There are 9 fish in each aquarium. How many fish in all are in the aquariums?

2. Declan has 81 dollar bills. He puts them in piles of 9. How many piles does he make?

Find the unknown number for each Fast Array drawing.

3. 4\(\times\)8 = 32

4. 3\(\times\)7 =

5. 9\(\times\)5 = 45

Solve.

6. LaDonna buys 2 grapefruits that together have a mass of 479 grams. If one grapefruit has a mass of 245 grams, what is the mass of the other grapefruit?

7. Harper fills 3 pots each with 4 liters of water. How many liters of water does he pour into the pots?

8. Stretch Your Thinking I am an hour that happens two times a day. My hands point in opposite directions. Both my hands point to a number on the clock. What hour am I?
Write the times as minutes *after* an hour and minutes *before* an hour.

1.  
2.  
3.  

4.  
5.  
6.  

7.  
8.  
9.  
Remembering

Multiply or divide to find the unknown numbers.

1. \( \frac{36}{9} = \) □
2. \( 40 \div 5 = \) □
3. \( 2 \cdot 7 = \) □
4. \( 7 \times 5 = \) □
5. \( 10)90 = \) □
6. \( 10 \times 8 = \) □

Write an equation to solve the problem.

7. Antonio is planting bean seeds. He puts 6 seeds in each row. There are 5 rows. How many bean seeds does he plant?

8. The baker made 56 fresh baked muffins. There are 8 muffins in each tin. How many tins did he use?

Write the time on the digital clock. Then write how to say the time.

9. □: □
10. □: □
11. □: □
12. □: □

13. Stretch Your Thinking List five different times in which the minutes before are the same as the minutes after the hour.
Complete.

1. Complete the table.

<table>
<thead>
<tr>
<th>Start Time</th>
<th>Elapsed Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00 P.M.</td>
<td></td>
<td>10:00 P.M.</td>
</tr>
<tr>
<td>2:27 A.M.</td>
<td></td>
<td>4:45 A.M.</td>
</tr>
<tr>
<td>3:30 A.M.</td>
<td>1 hour and 22 minutes</td>
<td></td>
</tr>
<tr>
<td>2:10 P.M.</td>
<td>3 hours and 16 minutes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 hours and ten minutes</td>
<td>11:00 A.M.</td>
</tr>
<tr>
<td></td>
<td>4 hours and 39 minutes</td>
<td>7:53 P.M.</td>
</tr>
</tbody>
</table>

Solve. Use your clock if you need to.

2. Liza left the library at 11:30 A.M. on Saturday.
   She had been there for 1 hour and 25 minutes.
   What time did she get to the library?

3. Andres spent from 4:15 P.M. to 5:05 P.M. doing chores. How much time did Andres spend doing his chores?

4. Arjun arrived at baseball practice at 5:15 P.M.
   He practiced for 1 hour and 30 minutes.
   What time did baseball practice end?

5. Today Sarah’s piano lessons started at 4:15 P.M.
   She was finished with her lessons at 5:10 P.M.
   How long was Sarah at piano lessons?
Multiply or divide to find the unknown numbers.

1. \( \frac{30}{3} = \) 
2. \( 27 \div 9 = \) 
3. \( 2 \times 3 = \) 
4. \( 7 \times 9 = \) 
5. \( 5 \div 20 = \) 
6. \( 4 \times 3 = \)

Write an equation and solve the problem.

7. There are 36 students at the show. They sit in 4 equal rows. How many seats are in each row?

8. The music teacher set up 67 chairs for the concert. The principal set up 35 chairs for the concert. How many chairs in all did they set up?

Write the times as minutes after an hour and minutes before an hour.

9. 
10. 
11. 

12. Stretch Your Thinking Write a word problem where something starts at 8:25 A.M. and ends at 1:43 P.M.
Solve using a number line.

1. Terry began watching a movie at 5:45 P.M. The movie lasted 2 hours 20 minutes. Then Terry spent 25 minutes eating a snack. What time did Terry finish eating the snack?

2. Evan left his friend’s house at 5:00 P.M. He had been there 2 hours 15 minutes. At what time did Evan arrive at his friend’s house?

3. Haley began reading her book at 9:55 A.M. She read for 1 hour 35 minutes. Then she spent 45 minutes doing homework. What time did Haley finish her homework?

4. Myra left home at 12:45 P.M. She spent 30 minutes eating lunch and 50 minutes watching a parade. Then it took her 15 minutes to drive home. What time did Myra return home?
Make a rectangle drawing to represent each exercise.
Then find the product.
1. \(6 \times 9 = \) _____
2. \(7 \times 5 = \) _____
3. \(3 \times 6 = \) _____

Write the first step question and answer.
Then solve the problem.

4. The baker makes 54 biscuits in the morning.
   Then he makes 26 more in the afternoon.
   He puts 10 biscuits in each bag. How many bags does he fill?

5. Complete the table.

<table>
<thead>
<tr>
<th>Start Time</th>
<th>Elapsed Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:32 A.M.</td>
<td>1 hour 23 minutes</td>
<td></td>
</tr>
<tr>
<td>1:19 P.M.</td>
<td></td>
<td>5:37 P.M.</td>
</tr>
<tr>
<td>2 hours 45 minutes</td>
<td></td>
<td>7:31 P.M.</td>
</tr>
</tbody>
</table>

6. Stretch Your Thinking Write a two step time word problem using the number line in which the start time is 4:50. Use the number line below to show how to solve.
Solve. Use a clock or sketch a number line diagram if you need to.

1. Rhea arrived at the mall at 3:45 P.M. She spent 45 minutes having lunch and then she shopped for 55 minutes before leaving the mall. How much time did Rhea spend at the mall?

2. Mrs. Cox is baking a ham for dinner. It takes 1 hour 30 minutes to bake. The family eats at 6:15 P.M. What time should Mrs. Cox put the ham in the oven?

3. Dina started chores at 8:15 A.M. and finished at 9:05 A.M. It took her 30 minutes to clean her room and she spent the rest of the time bathing her dog. How long did Dina spend bathing her dog?

4. Jerry finished skating at 7:00 P.M. He skated for 1 hour 45 minutes. What time did he start skating?

5. Jason started his project at 2:30 P.M. and finished 2 hours and 15 minutes later. He spent 25 minutes doing research, 30 minutes writing a report, and the rest of the time building a model. What time did he finish his project? How much time did he spend building the model?
Solve each problem.

1. The farmer makes stacks of 4 bales of hay. He makes 6 stacks. How many bales of hay does he stack?

2. Lilly has 85 shells in her collection. She gives 13 shells to her best friend. She puts the rest of her shells in groups of 9. How many groups does she make?

Show Your Work

Solve.

3. William and Hannah went to the bowling alley at 5:30 p.m. They bowled for 1 hour 20 minutes. Then they played a video game for 30 minutes. After the video game, they leave to go home. What time did they leave?

4. **Stretch Your Thinking** Tony is cooking dinner. He starts cooking at different times, so all the foods will be ready at the same time. The chicken takes 25 minutes to cook, the rice takes 40 minutes to cook, and the green beans take 15 minutes to cook. All the foods are finished at 5:33 p.m. At what time did he start cooking each food?
Use the horizontal bar graph to answer each question.

**Books in the Library**

<table>
<thead>
<tr>
<th>Type of Book</th>
<th>Number of Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiction</td>
<td>32</td>
</tr>
<tr>
<td>Science</td>
<td>12</td>
</tr>
<tr>
<td>Biography</td>
<td>8</td>
</tr>
</tbody>
</table>

1. How many fiction books are in the library? ________________

2. How many more science books are there than biographies? ________________

3. Write two of your own questions that can be answered using the graph.
   ____________________________________________________________________
   ____________________________________________________________________

Use the vertical bar graph to answer each question.

**Pets at the Kennel**

<table>
<thead>
<tr>
<th>Type of Pet</th>
<th>Number of Pets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bird</td>
<td>6</td>
</tr>
<tr>
<td>Dog</td>
<td>21</td>
</tr>
<tr>
<td>Cat</td>
<td>6</td>
</tr>
</tbody>
</table>

4. How many cats and dogs are at the kennel? ________________

5. The kennel has the fewest of which type of pet? ________________

6. Write two of your own questions that can be answered using the graph.
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________
Multiply or divide.

1. \(7 \times 3 = \) _____
2. \(4 \times \) _____ = 20
3. \(81 \div 9 = \) _____
4. \(\frac{8}{2} = \) _____
5. \(5 \times 9 = \) _____
6. \(2 \times \) _____ = 12

Write an equation and solve the problem.

7. The toy store receives a shipment of games. There are 8 boxes. Each box has 20 games. How many games are in the shipment?

__________________________

Solve. Use a clock or sketch a number line diagram to help you.

8. Emily arrives at school at 8:35 A.M. Together reading and math last for 1 hour 35 minutes. Then Emily goes to band practice for 45 minutes. What time does band practice end?

__________________________

9. Stretch Your Thinking Use the graph at the right. If the pet store had 10 more birds, the number of dogs would be double the number of birds. What numbers should be on the scale? Explain how you solved.

__________________________

__________________________

__________________________

__________________________

__________________________
Use the vertical bar graph to answer the questions.

Sunnytown Reading Festival

1. About how many books did students at Maxwell School read?

2. How many more books did students at Grover School read than students at Hopper School?

3. How many fewer books did students at Hopper School read than students at Warner School?

4. How many more books did the students at Maxwell need to read to have the same number of books as Warner?

5. Use the information in this table to make a vertical bar graph.

Pinball Scores

<table>
<thead>
<tr>
<th>Player</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trina</td>
<td>500</td>
</tr>
<tr>
<td>Mindy</td>
<td>350</td>
</tr>
<tr>
<td>Warren</td>
<td>200</td>
</tr>
</tbody>
</table>

Pinball Scores
Multiply or divide to find the unknown numbers.

1. \(16 = \underline{\hspace{1cm}} \times 4\)  
2. \(\underline{\hspace{1cm}} = 4 \times 8\)  
3. \(42 \div 7 = \underline{\hspace{1cm}}\)

4. \(8 = 56 \div \underline{\hspace{1cm}}\)  
5. \(2 \times \underline{\hspace{1cm}} = 10\)  
6. \(9 \times 3 = \underline{\hspace{1cm}}\)

Use the horizontal bar graph to answer each question.

7. How many markers are there?

8. How many more crayons are there than pencils?

9. How many fewer pencils are there than markers?

10. Write your own question that can be answered using the graph.

11. Stretch Your Thinking Draw a Favorite Color horizontal bar graph in which red has 300 more votes than yellow, and blue has double the votes of red. Use a scale with an interval of 100.
Measure the lengths of 12 shoes at your home to the nearest \( \frac{1}{2} \) inch. Record the data in the Tally Chart and then make a Frequency Table.

1.

<table>
<thead>
<tr>
<th>Tally Chart</th>
<th>Frequency Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>Tally</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Use the data above to make a line plot.

2.

<table>
<thead>
<tr>
<th>Lengths of Shoes (in Inches)</th>
</tr>
</thead>
</table>

Use the data displays to answer the questions.

3. What is the length of the shortest shoe? ________________

4. What is the length of the longest shoe? ________________

5. Which length appears the most often? ________________

6. Write a question that can be answered using the data displayed on the line plot.

_________________________________________________________________
Complete.

1. \(9 + (3 \times 0) = \) 
2. \(21 \times 1 = \) 
3. \(4 \times (3 + 3) = \) 

4. \(3 \times (5 + 1) = \) 
5. \(5 \times 9 = 9 \times \) 
6. \((9 + 1) \times 3 = \)

Use the vertical bar graph to answer the questions.

7. How many more cans did the 3rd grade collect than the 2nd grade? ________

8. How many fewer cans did the 2nd grade collect than the 1st grade? ________

9. About how many more cans would the 4th grade have to collect to have the same number as the grade with the most cans? ________

10. Stretch Your Thinking You need to find how many people drew a picture in less than 12 minutes. Which data display is easier to use to find the answer? Explain.
The coach of the girls’ soccer team measured the heights of the players to the nearest $\frac{1}{2}$ inch. She recorded the heights in the line plot below.

Use the line plot to solve the problems.

1. How many players are $47\frac{1}{2}$ inches tall?

2. What is the difference in height between the tallest player on the team and the shortest player?

3. What is the most frequent height?

4. How many players are on the soccer team?

5. Are there more players $47\frac{1}{2}$ inches tall and greater or less than $47\frac{1}{2}$ inches tall?

6. How many more players are $49\frac{1}{2}$ inches than $46\frac{1}{2}$ inches tall?
Write an equation and solve the problem.

1. Jon used 1-foot square tiles to cover his bathroom floor. The bathroom is 8 feet long and 10 feet wide. How many tiles did he use to cover his floor?

2. The principal buys 42 red cups and 21 blue cups. She puts 7 cups on each table. How many tables will have cups?

Use the data below to make a line plot.

3. **Lengths of Pencils in Inches**

<table>
<thead>
<tr>
<th>Lizzie</th>
<th>Carl</th>
</tr>
</thead>
<tbody>
<tr>
<td>7\frac{1}{2}</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mario</th>
<th>Aja</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jenn</th>
<th>Joe</th>
<th>Jung</th>
</tr>
</thead>
<tbody>
<tr>
<td>6\frac{1}{2}</td>
<td>7\frac{1}{2}</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Travis</th>
<th>Terrell</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

4. Stretch Your Thinking You need to find the height of most third graders at your school. What type of data display would you use? Explain.
Measure the length of a smile of 10 different people to the nearest \( \frac{1}{2} \) inch.

1. Record the lengths in the box below.

2. Organize the measurement data in a frequency table and a line plot.

<table>
<thead>
<tr>
<th>Frequency Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Line Plot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

3. Describe what your line plot shows.
Write an equation and solve the problem.

1. There are 72 skateboards in the shop. If Todd sells 8 each day, how many days will it take him to sell all of the skateboards?

Complete.

2. $36 = ____ \times 4$  
3. ____ $\times 9 = 81$  
4. ____ $= 54 \div 6$

Use the line plot to solve the problems.

5. How many people exercised for 6 hours?

6. Did more people exercise less than 5 hours or more than 6 hours?

7. Stretch Your Thinking What can you conclude about the data in the line plot?