1. Determine the area and perimeter of the rectangle.

\[
\begin{align*}
W & \quad L \\
20 & \quad 0 \\
A & = LW \\
& = 8 \times 2 \\
& = 16 \text{ cm}^2 \\
P & = 2(L + W) \\
& = 2(8 + 2) \\
& = 20 \text{ cm} \\
& = 20
\end{align*}
\]

2. Determine the perimeter of the rectangle.

\[
\begin{align*}
P & = 2(L + W) \\
P & = 2(347 + 99) \\
P & = 2(446) \\
P & = 892 \text{ m}
\end{align*}
\]

3. A rectangle with whole number side lengths has an area of 24 square centimeters and a perimeter of 22 centimeters. Find the length and width of the rectangle.

\[
A = 24 \text{ cm}^2 \\
P = 22 \text{ cm}
\]
1. A balance beam at a playground is 2 feet wide. It is 5 times as long as it is wide.
   a. Label the diagram with the dimensions of the balance beam.
      \[
      \begin{array}{c}
      \text{2 ft} \\
      \text{2 ft} \\
      \text{2 ft} \\
      \text{2 ft} \\
      \text{2 ft} \\
      \text{2 ft} \\
      \end{array}
      \]
      \[
      2 \times 6 = 12 \text{ ft}
      \]
   b. Find the perimeter of the balance beam.
      \[
      P = 2 \times (1 + w) \\
      P = 2 \times 2 \\
      = 4 \text{ ft}
      \]
      \[
      P = 28 \text{ feet}
      \]

2. A blanket is 4 feet wide. It is 3 times as long as it is wide.
   a. Draw a diagram of the blanket and label its dimensions.
      \[
      \begin{array}{c}
      \text{4 ft} \\
      \text{4 ft} \\
      \text{4 ft} \\
      \end{array}
      \]
      \[
      4 \times 3 = 12 \text{ ft}
      \]
   b. Find the perimeter and area of the blanket.
      \[
      P = 2 \times (1 + w) \\
      P = 2 \times (12 + 4) \\
      P = 32 \text{ ft}
      \]
Solve the following problem. Use pictures, words, or diagrams to help you solve.

1. A poster is 3 times as long as it is wide. A banner is 5 times as long as it is wide. Both the banner and the poster have perimeters of 24 inches. What are the length and width of the poster and the banner?
Name ___________________________ Date ________________

1. Complete the following equations.
   a. $5 \times 10 = \underline{50}$
   b. $\underline{10} \times 5 = 500$
   c. $5,000 = \underline{5} \times 1,000$
   d. $10 \times 2 = \underline{20}$
   e. $\underline{100} \times 20 = 2,000$
   f. $2,000 = 10 \times \underline{200}$
   g. $100 \times 18 = \underline{1800}$
   h. $\underline{320} = 10 \times 32$
   i. $4,800 = \underline{48} \times 1,000$
   j. $60 \times 4 = \underline{240}$
   k. $5 \times 600 = \underline{3000}$
   l. $8,000 \times 5 = \underline{40,000}$

* 4.8

I'm guessing this should be 48,000.
Draw number disks to represent the value of the following expressions.

1. \[4 \times 200 = 800\]
   4 times \(\underline{2}\) hundreds is \(\underline{8}\) hundreds.

2. \[4 \times 2,000 = 8,000\]
   4 times \(\underline{2}\) thousands is \(\underline{8}\) thousands.

3. Find the product.

   a. \[30 \times 3 = 90\]
      \[3 \text{ tens} \times 3 = 9 \text{ tens} = 90\]
   b. \[8 \times 20 = 160\]
      \[8 \times 2 \text{ tens} = 16 \text{ tens} = 160\]
   c. \[6 \times 400 = 2,400\]
      \[6 \times 4 \text{ hundreds} = 24 \text{ hundreds} = 2,400\]
   d. \[2 \times 900 = 1,800\]
      \[2 \times 9 \text{ hundreds} = 18 \text{ hundreds} = 1,800\]
   e. \[8 \times 80 = 640\]
      \[8 \times 8 \text{ tens} = 64 \text{ tens} = 640\]
   f. \[30 \times 4 = 120\]
      \[3 \text{ tens} \times 4 = 12 \text{ tens} = 120\]
   g. \[500 \times 6 = 3,000\]
      \[5 \text{ hundreds} \times 6 = 30 \text{ hundreds} = 3,000\]
   h. \[8 \times 5,000 = 40,000\]
      \[8 \times 5 \text{ thousands} = 40 \text{ thousands} = 40,000\]

4. Bonnie worked for 7 hours each day for 30 days. How many hours did she work altogether?

\[7 \times 30 = \underline{210}\]

7 times \(\underline{3}\) tens is \(\underline{21}\) tens

Bonnie worked \(\underline{210}\) hours altogether.
Represent the following problem by drawing disks in the place value chart.

1. To solve $20 \times 30$, think:

$$(2 \text{ tens } \times 3) \times 10 = \underline{600}$$
$$20 \times (3 \times 10) = \underline{600}$$
$$20 \times 30 = \underline{600}$$

2. Draw an area model to represent $20 \times 30$.

$$2 \text{ tens } \times 3 \text{ tens} = \underline{6 \text{ hundreds}}$$

3. Every night, Eloise reads 40 pages. How many pages total does she read at night during the 30 days of November?

$$4 \text{ tens } \times 3 \text{ tens} = \underline{12 \text{ hundreds}} = 1200$$
1. Represent the following expressions with disks, regrouping as necessary. To the right, record the partial products vertically.

a. \( 6 \times 41 \)

\[
\begin{array}{cccc}
H & T & O \\
6 & 0 & 0 & 0 \\
6 & 0 & 0 & 0 \\
\end{array}
\]

\[6 \times 4 \text{ tens} + 6 \text{ ones} = \]

\[2 \text{ hundreds} + 4 \text{ tens} + 6 \text{ ones} = 246
\]

b. \( 7 \times 31 \)

\[
\begin{array}{cccc}
H & T & O \\
3 & 1 & 0 & 0 \\
0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 \\
\end{array}
\]

\[3 \times 7 \]

\[
\begin{array}{cccc}
7 & & & \\
2 & 1 & 0 & 0 \\
\end{array}
\]

\[21 \text{ tens} + 7 \text{ ones} = 217
\]

\[2 \text{ hundreds} + 1 \text{ ten} + 7 \text{ ones} = 217
\]
Use the RDW process to solve the following problem.

1. Jennifer has 256 pink beads. Stella has 3 times as many beads as Jennifer. Tiah has 104 more beads than Stella. How many beads does Tiah have?

\[
\begin{align*}
\text{J} & \quad \text{256} \quad \text{768} \\
\text{S} & \quad \text{104} \\
\text{T} & \quad ?
\end{align*}
\]

\[
\frac{256 \times 3}{768} + 104 = 872
\]

Tiah has 872 beads.
1. Solve using the RDW process.
   a. Michael earns $9 per hour. He works 28 hours each week. How much will he earn in 6 weeks?
      \[
      \text{Michael will earn } \frac{252}{1252} \times \frac{9}{6} = \frac{1512}{6} = 252 \text{ in 6 weeks.}
      \]

   b. David earns $8 per hour. He works 40 hours each week. How much will he earn in 6 weeks?
      \[
      \text{David will earn } \frac{320}{800} \times \frac{8}{6} = \frac{1920}{576} = 320 \text{ in 6 weeks.}
      \]

   c. After 6 weeks who earned more money? How much more money?
      \[
      \begin{align*}
      M & : 1512 \\
      D & : 1920 \\
      \hline
      & \frac{1920}{-1512} \quad \frac{408}{408}
      \end{align*}
      \]
      David earned $408 more than Michael.
Solve the following problem. Use the RDW process.

1. Fifty-three students are going on a field trip to the zoo. Before the trip, a teacher forms groups of students and assigns a chaperone to each group. As much as she can, the teacher divides the students into groups of 6. How many groups of students will there be? Will each group have 6 students? How many total chaperones are needed?

The quotient is 8 and the remainder is 5.

There will be 9 groups of students.
No, 8 groups will have 6 students and 1 group will have 5 students.
The teacher will need 9 chaperones.

Option: Use this problem with 23 students instead of 53.
Solve using the standard algorithm. Check your quotient and remainder by using multiplication and addition.

1. \[93 \div 7\]
   
   \[
   \begin{array}{c}
   13 \\
   7 \div 93 \\
   \hline
   13 \\
   \hline
   23 \\
   \hline
   21 \\
   \hline
   2
   \end{array}
   \]

   Quotient = 13
   Remainder = 2

2. \[99 \div 8\]
   
   \[
   \begin{array}{c}
   12 \\
   8 \div 99 \\
   \hline
   12 \\
   \hline
   96 \\
   \hline
   3
   \end{array}
   \]

   Quotient = 12
   Remainder = 3
1. Molly's photo album has a total of 97 pictures. Each page of the album holds 6 pictures. How many pages can Molly fill? Will there be any pictures left? If so, how many? Use number disks to solve.

Molly can fill 16 pages. There will be one picture left.

2. Marty's photo album has a total of 45 pictures. Each page holds 4 pictures. She said she can only fill 10 pages completely. Do you agree? Explain why or why not.

No I do not agree. If she fills 10 pages she will have 5 pictures left over. She can fill another page. So that means she can fill 11 pages and have 1 picture left over. \((4 \times 11) + 1 = 45\).
1. Tony drew the following area model to find an unknown length. What division equation did he model?

\[
\begin{array}{c}
20 \quad 4 \\
3 \quad 60 \quad 12 \\
\end{array}
\]

\[72 \div 3 = 24\]

2. Solve \[42 \div 3\] using the area model, a number bond, and a written method.

\[
3 \quad 10 \quad 4
\]

\[
\begin{array}{c}
42 \\
30 \quad 12 \\
(30 \div 3) + (12 \div 3) \\
= 10 + 4 \\
= 14
\end{array}
\]
1. Kyle drew the following area model to find an unknown length. What division equation did he model?

   \[
   \begin{array}{c}
   \text{2 tens} \quad \text{9 ones} \\
   \hline
   \text{2} \quad \Box \\
   \hline
   \text{40} \quad \boxed{18} \\
   \text{1 square unit}
   \end{array}
   \]

   \[
   \begin{array}{c}
   2 \overline{) \text{59}} \\
   4 \downarrow \\
   19 \\
   -18 \\
   \hline
   1
   \end{array}
   \]

2. Solve \(93 \div 4\) using the area model, long division, and the distributive property.

   \[
   \begin{array}{c}
   \text{2 tens} \quad \text{3 ones} \\
   \hline
   \text{4} \quad \Box \\
   \hline
   \text{80 square units} \quad \text{12 square units} \\
   \text{1 square unit}
   \end{array}
   \]

   \[
   (80 \div 4) + (12 \div 4) = 20 + 3 = 23
   \]

   \[
   (23 \times 4) + 1 = 93
   \]
Record the factors of the given numbers as multiplication sentences and as a list in order from least to greatest. Classify each as prime (P) or composite (C).

<table>
<thead>
<tr>
<th>Multiplication Sentences</th>
<th>List of Factors</th>
<th>Prime (P) or Composite (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. 9 (1 \times 9 = 9) 3 (3 \times 3 = 9)</td>
<td>The factors of 9 are: 1, 3, 9</td>
<td>C</td>
</tr>
<tr>
<td>b. 12 (1 \times 12 = 12) 2 (2 \times 6 = 12) 3 (3 \times 4 = 12)</td>
<td>The factors of 12 are: 1, 2, 3, 4, 6, 12</td>
<td>C</td>
</tr>
<tr>
<td>c. 19 (1 \times 19 = 19)</td>
<td>The factors of 19 are: 1, 19</td>
<td>P</td>
</tr>
</tbody>
</table>
1. Explain your thinking or use division to answer the following.

<table>
<thead>
<tr>
<th>a. Is 2 a factor of 34?</th>
<th>b. Is 3 a factor of 34?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes because 34 is an even number. 2 is a factor of every even number.</td>
<td>No</td>
</tr>
</tbody>
</table>
| $\begin{array}{c}
\text{8} \\
\text{2} \\
\text{2} \\
\hline
\text{1} \\
\end{array}$ | $\begin{array}{c}
\text{11} \\
\text{3} \\
\text{3} \\
\hline
\text{R1} \\
\end{array}$ |

<table>
<thead>
<tr>
<th>c. Is 4 a factor of 72?</th>
<th>d. Is 3 a factor of 72?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
| $\begin{array}{c}
\text{18} \\
\text{4} \\
\text{2} \\
\hline
\text{4} \\
\end{array}$ | $\begin{array}{c}
\text{24} \\
\text{3} \\
\text{3} \\
\hline
\text{0} \\
\end{array}$ |

2. Use the associative property to explain why the following statement is true.

Any number that has 9 as a factor also has 3 as a factor.

Any number that can be divided exactly by 9 can also be divided by 3 since $9 = 3 \times 3$

Example

$36 = 9 \times 4$
$36 = (3 \times 3) \times 4$
1. Fill in the unknown multiples of 11.
   \[ 5 \times 11 = 55 \]
   \[ 6 \times 11 = 66 \]
   \[ 7 \times 11 = 77 \]
   \[ 8 \times 11 = 88 \]
   \[ 9 \times 11 = 99 \]

2. Complete the pattern of multiples by skip-counting.
   \[ 7, 14, 21, 28, 35, 42, 49, 56, 63, 70 \]

3. a. List the numbers that have 18 as a multiple.
   \[ 1, 2, 3, 6, 9, 18 \]

   b. What are the factors of 18?
   \[ 1, 2, 3, 6, 9, 18 \]

   c. Are your two lists the same? Why or why not?
   My two lists are the same because the factors are what you multiply together to get a multiple.
Name ___________________________  Date _____________

Use the calendar below to complete the following:

a. Cross off all composite numbers.

b. Circle all of the prime numbers.

c. List any remaining numbers.

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4</td>
<td>5</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>13</td>
<td>19</td>
<td>23</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Explore properties of prime and composite numbers to 100 by using multiples.
1. Rewrite each in unit form. Solve for the quotient.

<table>
<thead>
<tr>
<th></th>
<th>600 ÷ 3 = 200</th>
<th>1,200 ÷ 6 = 200</th>
<th>2,100 ÷ 7 = 300</th>
<th>3,200 ÷ 8 = 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>6 hundreds ÷ 3 = 200</td>
<td>12 hundreds ÷ 6 = 200</td>
<td>21 hundreds ÷ 7 = 300</td>
<td>32 hundreds ÷ 8 = 400</td>
</tr>
<tr>
<td>b.</td>
<td>2 hundreds</td>
<td></td>
<td>3 hundreds</td>
<td></td>
</tr>
</tbody>
</table>

2. Hudson and 8 of his friends found a bag of pennies. There were 360 pennies which they shared equally. How many pennies did each person get?

36 tens ÷ 9 = 4 tens

Each person got 40 pennies.
Divide. Use number disks to model each problem. Then solve using the algorithm.

1. \(423 \div 3\)

   **Number Disks**
   
<table>
<thead>
<tr>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

   **Algorithm**
   
   \[3 \overline{423} - 3 \overline{12} - 12 = \overline{03} - \overline{3} = 0\]

2. \(564 \div 4\)

   **Number Disks**
   
<table>
<thead>
<tr>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

   **Algorithm**
   
   \[4 \overline{564} - 4 \overline{16} - 16 = \overline{04} - 4 = 0\]
1. Divide. Check your work by multiplying. Draw disks on a place value chart as needed.

   a. \[776 \div 2\]
      \[
      \begin{array}{c}
      388 \\
      2 \overline{\div 776} \\
      -16 \\
      \underline{-16} \\
      0
      \end{array}
      \]
      \[
      \begin{array}{c}
      388 \\
      \times 2 \\
      \underline{776} \checkmark
      \end{array}
      \]

   b. \[596 \div 3\]
      \[
      \begin{array}{c}
      198 \text{R}2 \\
      3 \overline{\div 596} \\
      -3 \\
      \underline{-27} \\
      29 \\
      -24 \\
      \underline{26} \\
      2 \checkmark
      \end{array}
      \]

   \[Q = 198\]
   \[R = 2\]

2. A carton of milk contains 128 ounces. Sara’s son drinks 4 ounces of milk at each meal. How many 4-ounce servings will one carton of milk provide?

   \[
   \begin{array}{c}
   32 \\
   \overline{4 \div 128} \\
   -12 \\
   \underline{-12} \\
   08 \\
   -8 \\
   \underline{0}
   \end{array}
   \]

   One carton of milk will provide \(32\) servings.

   \[
   32 \times 4 \\
   \underline{128} \checkmark
   \]
1. Divide, then check using multiplication.

   a. \[ \frac{1,770}{3} = 590 \]
      
      \[
      \begin{array}{c|c}
      -15 & \hline
      27 & \hline
      -27 & \hline
      0 & \hline
      \end{array}
      \]
      
      \[ \frac{2}{3} = \frac{590}{1,770} \checkmark \]

   b. \[ \frac{8,470}{5} = 1,694 \]
      
      \[
      \begin{array}{c|c}
      -5 & \hline
      34 & \hline
      -30 & \hline
      47 & \hline
      -45 & \hline
      20 & \hline
      -20 & \hline
      0 & \hline
      \end{array}
      \]
      
      \[ \frac{3}{5} = \frac{1,694}{8,470} \checkmark \]

2. The post office had an equal number of each of 4 types of stamps. There were a total of 1,784 stamps. How many of each type of stamp did the post office have?

   \[ 1,784 \]
   
   \[
   \begin{array}{c|c}
   -16 & \hline
   446 & \hline
   -16 & \hline
   -24 & \hline
   -24 & \hline
   0 & \hline
   \end{array}
   \]
   
   \[ \frac{446}{1,784} \checkmark \]
   
   There are 446 of each type of stamp.
Name _______________________________ Date __________________

Divide. Check your solutions by multiplying.

1. \(380 \div 4\)
   
   \[
   \begin{array}{r}
   95 \\
   \hline
   4 \big| 380 \\
   -36 \\
   \hline
   20 \\
   -20 \\
   \hline
   0
   \end{array}
   \]

   \[
   \begin{array}{r}
   95 \\
   \hline
   2 \times 4 \\
   \hline
   380
   \end{array}
   \]

2. \(7040 \div 3\)
   
   \[
   \begin{array}{r}
   2346 \text{ R } 2 \\
   \hline
   3 \big| 7040 \\
   -6 \\
   \hline
   10 \\
   -9 \\
   \hline
   1 \\
   \hline
   0 \text{ R } 2
   \end{array}
   \]

   \[
   \begin{array}{r}
   2346 \\
   \hline
   \div x 3 \\
   \hline
   7038 \\
   + 2 \\
   \hline
   7040
   \end{array}
   \]
Solve the following problems. Draw tape diagrams to help you solve. Identify if the group size or the number of groups is unknown.

1. 572 cars were parked in a parking garage. The same number of cars parked on each floor. If there were 4 floors, how many cars were parked on each floor?

   \[ \begin{array}{c}
   \square \square \square \square \\
   672 \\
   4 \sqrt{572} \\
   \hline
   \hline
   -4 \\
   \hline
   -17 \\
   \hline
   -16 \\
   \hline
   -12 \\
   \hline
   -12 \\
   \hline
   0 \\
   \end{array} \]

   There were 143 cars parked on each floor.

   The group size is unknown.

2. 356 kg of flour were packed into sacks holding 2 kg each. How many sacks were packed?

   \[ \begin{array}{c}
   \square \square \square \square \\
   356 \text{ kg} \\
   2 \sqrt{356} \\
   \hline
   \hline
   -2 \\
   \hline
   -15 \\
   \hline
   -14 \\
   \hline
   -16 \\
   \hline
   0 \\
   \end{array} \]

   178 sacks were packed.

   The number of groups is unknown.
Name ____________________________ Date __________

Solve the following problems. Draw tape diagrams to help you solve. If there is a remainder, shade in a small portion of the tape diagram to represent that portion of the whole.

1. Mr. Foote needs exactly 6 folders for each fourth grade student at Hoover Elementary School. If he bought 726 folders, how many students can he supply folders to?

\[
\begin{array}{c}
\text{726} \\
\text{6} \\
\hline
\text{121 students}
\end{array}
\]

Mr. Foote can supply folders to 121 students.

2. Mrs. Terrance has a large bin of 236 crayons. He divides them equally among four containers. How many crayons does Mrs. Terrance have in each container?

\[
\begin{array}{c}
\text{236} \\
\text{4} \\
\hline
\text{59}
\end{array}
\]

Mrs. Terrance has 59 crayons in each container.
1. Anna solved the following division problem by drawing an area model.

```
200  40  9
3 | 600  120  27
```

a. What division problem did she solve?

\[ 747 \div 3 = 249 \]

b. Show a number bond to represent Anna's area model and represent the total length using the distributive property.

\[
\begin{align*}
747 & = 600 + 120 + 27 \\
600 & = 3 \times 200 \\
120 & = 3 \times 40 \\
27 & = 3 \times 9 \\
\end{align*}
\]

2. a. Draw an area model to solve 1,368 ÷ 2.

```
600  80  4
2 | 1,200  160  8
```

\[ 1,368 \div 2 = 684 \]

b. Draw a number bond to represent this problem.

\[
\begin{align*}
1368 & = 1200 \div 2 + 160 \div 2 + 8 \div 2 \\
600 & = 3 \times 200 \\
80 & = 3 \times 40 \\
4 & = 3 \times 1 \\
\end{align*}
\]

c. Record your work using the long division algorithm.

\[
\begin{array}{c|cc}
21 & 1368 \\
-12 & \\
-12 & \\
\hline
-16 & \\
-16 & \\
\hline
0 & \\
\end{array}
\]

\[ 1368 \div 2 = 684 \]
1. Use the associative property to rewrite each expression. Solve using disks and then complete the number sentences.

   a. \(20 \times 41 = \)

      \[
      \frac{2 \times 10 \times 41}{2 \times (10 \times 41)} = \frac{2 \times (410)}{2 \times 820} = 820
      \]

   

2. Distribute 32 as 30 + 2 and solve.

   \[60 \times 32 = 60 \times 30 + 60 \times 2\]

   \[
   = 6 \text{ tens} \times 3 \text{ tens} + 6 \text{ tens} \times 2
   \]

   \[
   = 18 \text{ hundreds} + 12 \text{ tens}
   \]

   \[
   = 19 \text{ hundreds} + 2 \text{ tens}
   \]

   \[
   = 1,920
   \]
Use an area model to represent the following expressions. Then record the partial products and solve.

1. $30 \times 93$

   $\boxed{\begin{array}{c|c}
   30 & 90 \\
   \hline
   30 \times 90 & 30 \times 3 \\
   3\text{ tens} \times 9\text{ tens} & 3\text{ tens} \times 3\text{ ones} \\
   2700 & 90 \\
   \hline
   93 \\
   \times 30 \\
   \hline
   90 \\
   + 2700 \\
   \hline
   2790
   \end{array}}$

2. $40 \times 76$

   $\boxed{\begin{array}{c|c}
   40 & 70 \\
   \hline
   40 \times 70 & 40 \times 6 \\
   4\text{ tens} \times 7\text{ tens} & 4\text{ tens} \times 6\text{ ones} \\
   2800 & 240 \\
   \hline
   76 \\
   \times 40 \\
   \hline
   240 \\
   + 2800 \\
   \hline
   3040
   \end{array}}$
Record the partial products to solve.

Draw an area model first to support your work, or draw the area model last to check your work.

1. \[26 \times 43\]

\[
\begin{array}{c}
6 \\
2.40 \\
800 \\
\hline
26 \\
2.40 \\
800 \\
\hline
43 \\
\hline
1,118
\end{array}
\]

2. \[17 \times 55\]

\[
\begin{array}{c}
7 \\
350 \\
500 \\
\hline
55 \\
\hline
935
\end{array}
\]

Multiply two-digit by two-digit numbers using four partial products.
1. Solve $43 \times 22$ using 4 partial products and 2 partial products. Remember to think in terms of units as you solve. Write an expression to find the area of each smaller rectangle in the area model.

20
\[ \times \quad 2 \]
\[ \quad 2 \]
\[ \quad 3 \] ones \times 2 tens
\[ \quad 6 \] tens \times 2 tens
\[ \quad 6 \] ones \times 2 ones
\[ \quad 8 \] tens \times 2 ones
\[ \quad 8 \] ones \times 2 ones
\[ \quad 9 \] tens
\[ \quad 4 \] ones
\[ \quad 9 \] 4
\[ \quad 6 \]

2. Solve the following using 2 partial products.

\[ 5 \times 64 \]
\[ \quad 6 \] ones \times 64 ones
\[ \quad 3 \] tens \times 64 ones
\[ \quad 6 \] ones \times 64 ones
\[ \quad 9 \] 6
\[ \quad 0 \]

\[ 2 \times 64 \]
\[ \quad 5 \] ones
\[ \quad 3 \] 2
\[ \quad 0 \]

\[ 10 \times 64 \]
\[ \quad 4 \] 0
\[ \quad 6 \] 0
\[ \quad 0 \]
\[ \quad 6 \] 4
\[ \quad 0 \]
Solve using the multiplication algorithm.

1. 

\[
\begin{array}{c}
72 \\
\times 43 \\
\hline
216 \\
3 \times 72 \\
2880 \\
40 \times 72 \\
\hline
3096
\end{array}
\]

2. 

\[
\begin{array}{c}
53 \\
\times 35 \\
\hline
265 \\
1590 \\
\hline
1855
\end{array}
\]