Multiplying Dollars and Cents

You often have to multiply dollars and cents in daily life. Here are some tips to follow when you multiply money.

**Tip 1.** When you multiply dollars, line up the digits on the right.
You do not need a decimal point if there are no cents.

**Example:** $63 \times 4$

\[
\begin{array}{c}
63 \\
\times 4 \\
\hline \\
252 \\
\end{array}
\]  
This means the same as $252.00$

**Tip 2.** When you multiply dollars and cents, line up the digits on the right.
Multiply the numbers. Put the decimal point 2 places to the left in the final answer.

**Example:** $52.34 \times 25$

\[
\begin{array}{c}
52.34 \\
\times 25 \\
\hline \\
26170 \\
10468 \\
\hline \\
1308.50 \\
\end{array}
\]

Do not use decimal points in partial products. Place a $ and a decimal point in the answer.

**Tip 3.** When you multiply cents and the answer is more than 99¢, you must use the $ and decimal point.

**Example:** $75¢ \times 5 \rightarrow 75¢ = .75$

\[
\begin{array}{c}
.75 \\
\times 5 \\
\hline \\
3.75 \\
\end{array}
\]

A. Multiply the amounts below.

1. $36 \times 7$  
   $500 \times 20$  
   $2,725 \times 16$

2. $7.95 \times 6$  
   $680.50 \times 60$  
   $48 \times 219.46$

3. $35¢ \times 2$  
   $89¢ \times 24$  
   $60¢ \times 40$
B. For more practice, multiply the following money amounts.

4. $98 \times 4 \quad $742 \times 15 \quad $13,065 \times 30
5. $15.45 \times 3 \quad $67.08 \times 32 \quad 77 \times $205.60
6. 95¢ \times 36 \quad 9¢ \times 100 \quad 25¢ \times 72

C. Use your multiplication skills to solve the following.

7. In a special promotion, a grocery store gave a triple coupon discount. If Fumiko has a 75¢ coupon, what is her discount?

8. Jawon pays $278.35 per month to lease a car. How much will he pay if his lease lasts 2 years?

9. Paula and Ana Maria sold 50 flower arrangements at the craft show. If each one sold for $24.99, how much money did they collect?

10. John delivers daily newspapers to 64 households. At the end of each month he collects $18.50 from each newspaper customer. Find the total amount he collects.

Making Connections: Taking Inventory

Every January, Eagle Sport Shop takes an inventory of all the sporting goods in the store. Employees list the items, tally the number of items, and multiply the total by each item’s value. Sample items are listed below. Complete the chart. The first row is done for you.

**Eagle Sport Shop Inventory: January**

<table>
<thead>
<tr>
<th>Item</th>
<th>Tally</th>
<th>Total Items</th>
<th>Value per Item</th>
<th>Total Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headgear</td>
<td>III</td>
<td>14</td>
<td>$11.45</td>
<td>$160.30</td>
</tr>
<tr>
<td>Sport socks</td>
<td>III</td>
<td>3</td>
<td>3.68</td>
<td></td>
</tr>
<tr>
<td>Jump ropes</td>
<td>III</td>
<td>1</td>
<td>1.95</td>
<td></td>
</tr>
<tr>
<td>Sport gum</td>
<td>III</td>
<td>3</td>
<td>.37</td>
<td></td>
</tr>
<tr>
<td>Sweat suits</td>
<td>III</td>
<td>2</td>
<td>29.15</td>
<td></td>
</tr>
<tr>
<td>Treadmill</td>
<td>III</td>
<td>3</td>
<td>138.60</td>
<td></td>
</tr>
</tbody>
</table>

**Total Value: **

What is the total value of this inventory?
Area and Volume pp. 128–129

Part A
1. \( 12 \times 1 = 3 \times 4 = 2 \times 6 = 12 \) square units
2. 
   
3. a. 49 square inches  
   b. 40 square miles  
   c. 1,200 square yards  
4. 6,600 square yards

Part B
5. 162 cubic inches  
   9 \( \times 3 \times 6 = 162 \)
6. a. 2,400 cubic feet  
   \( 20 \times 15 \times 8 = 2,400 \)
   b. 16,800 gallons  
   \( 7 \times 2,400 = 16,800 \)

Multiplying Dollars and Cents pp. 130–131

Part A
1. \$252  
   \$10,000  
2. \$47.70  
   \$40,830  
3. 70¢  
   \$21.36  
   \$24

Part B
4. \$392  
   \$11,130  
   \$391,950
5. \$46.35  
   \$2,146.56  
   \$15,831.20
6. \$34.20  
   \$9  
   \$18

Part C
7. \$2.25  
   \( 75¢ = .75 \)
   \( 3 \times .75 = 2.25 \)
8. \$6,680.40  
   2 years = 24 months  
   \$278.35 \times 24 = \$6,680.40
9. \$1,249.50  
   \$24.99 \times 50 = \$1,249.50
10. \$1,184  
    \$18.50 \times 64 = \$1,184

Making Connections: Taking Inventory p. 131

<table>
<thead>
<tr>
<th>Item</th>
<th>Tally</th>
<th>Total Items</th>
<th>Value per Item</th>
<th>Total Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headgear</td>
<td>J H H</td>
<td>14</td>
<td>$11.45</td>
<td>$160.30</td>
</tr>
<tr>
<td>Sport socks</td>
<td>J H H H H H J</td>
<td>22</td>
<td>3.68</td>
<td>80.96</td>
</tr>
<tr>
<td>Jump ropes</td>
<td>H H H</td>
<td>18</td>
<td>1.85</td>
<td>33.30</td>
</tr>
<tr>
<td>Sport gum</td>
<td>J J H H J H J H H J</td>
<td>20</td>
<td>.57</td>
<td>11.40</td>
</tr>
<tr>
<td>Sweet suits</td>
<td>J J H H J H J H H</td>
<td>22</td>
<td>29.15</td>
<td>641.30</td>
</tr>
<tr>
<td>Treadmill</td>
<td>H J H H H H H H</td>
<td>14</td>
<td>138.60</td>
<td>1,940.40</td>
</tr>
</tbody>
</table>

Total Value: \$2,872.04

Multiplying on a Calculator pp. 132–133

Part A
1. 188,100  
   900,426  
2. 44,148  
   386,048  
3. 68,445  
   244,944  
4. \$1,232.10  
   \$122.50  
   \$23,005.44

Part B
Estimates will vary. Sample estimates are given below.
5. Estimate = 72,000  
   Estimate = 2,100,000
   Actual = 72,306  
   Actual = 2,464,760
6. Estimate = 36,000  
   Estimate = 75,000
   Actual = 40,824  
   Actual = 66,960

Part C

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
<th>Yearly Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent</td>
<td>$386 per month</td>
<td>$4,632</td>
</tr>
<tr>
<td>Food</td>
<td>$75 per week</td>
<td>$3,600</td>
</tr>
<tr>
<td>Car insurance</td>
<td>$1,064 per year</td>
<td>1,064</td>
</tr>
<tr>
<td>Health insurance</td>
<td>$28 per week</td>
<td>$1,456</td>
</tr>
<tr>
<td>Utilities</td>
<td>$150 per month</td>
<td>1,800</td>
</tr>
<tr>
<td>Car payments</td>
<td>$247 per month</td>
<td>2,964</td>
</tr>
<tr>
<td>Gas</td>
<td>$96 per month</td>
<td>1,152</td>
</tr>
<tr>
<td>Phone</td>
<td>$35 per month</td>
<td>420</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>$100 per week</td>
<td>$5,200</td>
</tr>
</tbody>
</table>

Total: \$22,588

Multistep Problems pp. 134–135

Part A
1. Step 1: \$12.45 \times 40 = \$498
   Step 2: \$540 + \$498 = \$1,038
2. Step 1: \$12.45 + \$1.86 = \$14.31
   Step 2: \$14.31 \times 40 = \$572.40, which is \$32.40 more than Gloria earns (\$540).