

# Multiplying by a One-Digit Number

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_ / 24

## Q Quick Review

To multiply a big number by a **one-digit number**, multiply each digit of the big number by that one digit, starting from the **ones**. When a product is 10 or more, write the ones digit and **regroup** (carry) the tens into the next column. Remember to add any carried number after you multiply the next place. Multiplication is just **repeated addition**, so  $248 \times 6$  means six groups of 248. Estimating first — like  $250 \times 6 = 1,500$  — helps you check your answer.

◊ **Example:** Find  $248 \times 6$ .

⇒ Multiply each digit by 6, starting at the ones. Ones:  $8 \times 6 = 48$ , write 8 and carry 4. Tens:  $4 \times 6 = 24$ , then add the carried 4 to get 28; write 8 and carry 2. Hundreds:  $2 \times 6 = 12$ , add the carried 2 to get 14; write 14. Reading it back gives 1,488. Check with estimation:  $250 \times 6 = 1,500$ , which is very close.

**Answer:** 1,488

## PRACTICE

Multiply. Regroup and carry when a product is 10 or more.

- |                    |       |                      |       |
|--------------------|-------|----------------------|-------|
| 1. $34 \times 3$   | _____ | 11. $1,234 \times 5$ | _____ |
| 2. $52 \times 4$   | _____ | 12. $2,056 \times 7$ | _____ |
| 3. $63 \times 5$   | _____ | 13. $3,471 \times 8$ | _____ |
| 4. $127 \times 4$  | _____ | 14. $4,205 \times 6$ | _____ |
| 5. $248 \times 6$  | _____ | 15. $5,360 \times 9$ | _____ |
| 6. $315 \times 7$  | _____ | 16. $6,048 \times 4$ | _____ |
| 7. $406 \times 8$  | _____ | 17. $7,125 \times 8$ | _____ |
| 8. $523 \times 9$  | _____ | 18. $8,302 \times 7$ | _____ |
| 9. $640 \times 3$  | _____ | 19. $9,460 \times 6$ | _____ |
| 10. $708 \times 6$ | _____ | 20. $1,875 \times 9$ | _____ |

### ◆ Word Problems

21. A box holds 144 crayons. A teacher orders 6 boxes for the classroom. How many crayons is that in all? \_\_\_\_\_
22. A movie theater has 375 seats. If it sells out for 8 shows, how many tickets are sold altogether? \_\_\_\_\_
23. A school bus travels 186 miles each day. How far does it travel in 5 days? \_\_\_\_\_
24. A bakery bakes 1,250 loaves of bread each day. How many loaves does it bake in 7 days? \_\_\_\_\_



## Answer Keys

- |            |                   |
|------------|-------------------|
| 1. 102     | 13. 27,768        |
| 2. 208     | 14. 25,230        |
| 3. 315     | 15. 48,240        |
| 4. 508     | 16. 24,192        |
| 5. 1,488   | 17. 57,000        |
| 6. 2,205   | 18. 58,114        |
| 7. 3,248   | 19. 56,760        |
| 8. 4,707   | 20. 16,875        |
| 9. 1,920   | 21. 864 crayons   |
| 10. 4,248  | 22. 3,000 tickets |
| 11. 6,170  | 23. 930 miles     |
| 12. 14,392 | 24. 8,750 loaves  |

### Step-by-Step Explanations

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|---|--|
| <p>1. <math>4 \times 3 = 12</math> (write 2, carry 1); <math>3 \times 3 = 9</math>, <math>+1 = 10</math>. That gives 102.</p> <p>2. <math>2 \times 4 = 8</math>; <math>5 \times 4 = 20</math>. So 208.</p> <p>3. <math>3 \times 5 = 15</math> (write 5, carry 1); <math>6 \times 5 = 30</math>, <math>+1 = 31</math>. The answer is 315.</p> <p>4. <math>7 \times 4 = 28</math>, <math>2 \times 4 = 8</math> plus carry 2 is 10, <math>1 \times 4 = 4</math> plus carry 1 is 5. So 508.</p> <p>5. Carrying through each place gives <math>248 \times 6 = 1,488</math>.</p> <p>6. <math>5 \times 7 = 35</math>, <math>1 \times 7 = 7</math> plus 3 is 10, <math>3 \times 7 = 21</math> plus 1 is 22. The answer is 2,205.</p> <p>7. <math>6 \times 8 = 48</math>, <math>0 \times 8 = 0</math> plus carry 4 is 4, <math>4 \times 8 = 32</math>. So 3,248.</p> <p>8. Multiply each digit by 9 and carry: <math>523 \times 9 = 4,707</math>.</p> <p>9. <math>0 \times 3 = 0</math>, <math>4 \times 3 = 12</math> (write 2, carry 1), <math>6 \times 3 = 18</math> plus 1 is 19. So 1,920.</p> <p>10. <math>8 \times 6 = 48</math>, <math>0 \times 6 = 0</math> plus carry 4 is 4, <math>7 \times 6 = 42</math>. The answer is 4,248.</p> <p>11. Multiply each of the four digits by 5 and carry: <math>1,234 \times 5 = 6,170</math>.</p> <p>12. Working right to left with carries gives 14,392.</p> | <p>13. Multiply each digit by 8: <math>3,471 \times 8 = 27,768</math>.</p> <p>14. Carry carefully through each place: the answer is 25,230.</p> <p>15. <math>5,360 \times 9 = 48,240</math> after multiplying each digit and carrying.</p> <p>16. Multiply each digit by 4: <math>6,048 \times 4 = 24,192</math>.</p> <p>17. Working through each place gives the round answer 57,000.</p> <p>18. Multiply each digit by 7 and carry: <math>8,302 \times 7 = 58,114</math>.</p> <p>19. Carry through each column: <math>9,460 \times 6 = 56,760</math>.</p> <p>20. Multiply each digit by 9: <math>1,875 \times 9 = 16,875</math>.</p> <p>21. Multiply the crayons per box by the number of boxes: <math>144 \times 6 = 864</math> crayons.</p> <p>22. Multiply seats by shows: <math>375 \times 8 = 3,000</math> tickets.</p> <p>23. Multiply the daily miles by 5: <math>186 \times 5 = 930</math> miles.</p> <p>24. Multiply the daily loaves by 7: <math>1,250 \times 7 = 8,750</math> loaves.</p> |
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