Multiplying Three-Digit Numbers by Three-Digit Numbers

Follow the steps to multiply 738 by 426. Remember to keep all digits in the correct column.

**Step 1** Multiply 738 by 6 ones.

\[
\begin{array}{c}
\times 426 \\
\hline \\
4428
\end{array}
\]

**Step 2** Write a 0 to hold the ones place. Multiply by 2 tens.

\[
\begin{array}{c}
\times 426 \\
\hline \\
4428 \\
7380
\end{array}
\]

**Step 3** Write two zeros to hold both the ones and tens places. Multiply by 4 hundreds.

\[
\begin{array}{c}
\times 426 \\
\hline \\
4428 \\
73800 \\
295200
\end{array}
\]

**Step 4** Add to get the final answer. Remember to include the comma.

\[
\begin{array}{c}
14760 \\
295200 \\
\hline \\
314388
\end{array}
\]

Solve.

1. a. \(258 \times 147\)  
   b. \(342 \times 135\)  
   c. \(284 \times 951\)  
   d. \(703 \times 517\)
Underline the correct word.

2. If Evangel is as tall as her friend Gertrude, and Gertrude is taller than her brother Peter, then Evangel is taller, shorter than Peter.

Write the products.

\[
\begin{array}{cccccccccccc}
\text{3.} & \times 3 & 11 & \times 7 & 11 & \times 2 & 11 & \times 6 & 11 & \times 10 & 11 & \times 4 & 11 & \times 9 & 11 & \times 5 & 11 & \times 11 & 11 & \times 8
\end{array}
\]

Estimate.

4. Timmy enjoyed watching for giraffes as his family drove across South Africa. He knows that giraffes have big appetites. An adult giraffe can eat 75 pounds or 34 kilograms of leaves in a day. Estimate how many pounds of leaves a herd of 18 giraffes would eat in a day.

\[
\underline{_______} \times \underline{_______} = \underline{_______} \underline{_______}
\]

5. Estimate how many kilograms of leaves 18 giraffes would eat in one day.

\[
\underline{_______} \times \underline{_______} = \underline{_______} \underline{_______}
\]

Complete the analogies.

6. Fast : slow :: tall : ________

b. 0.1 : \( \frac{1}{10} \) :: 0.6 : ________

Write = or ≠.

7. a. If \( a = 11 \), and \( b = 11 \), then a [ ] b.

b. If \( s = t \), and \( t = u \), then s [ ] u.

Round to the nearest ten.

8. a. 496 ________

b. 3,594 ________

Round to the nearest hundred.

9. a. 6,972 ________

b. 495 ________
Lesson 11

10. Brother David often preaches in Pollsmoor Prison in South Africa. There are 45 prisoners, ranging in age from 13 to 22, in each cell. One section has 32 cells. How many prisoners are in that section of the prison?

11. My Work Space

12. Brother David wrote a tract to give out to the men in prison. He made 200 copies of the tract. He has given out 125 copies. How many copies are left?

13. My Work Space

14. Write the first six multiples of 16.

15. What fraction of the tracts has been given out? Reduce the fraction to simplest form.

16. Use the graph on page iv. Underline the correct choice.

17. Classify each angle as right, obtuse, or acute.

18. Write the ratio for 4 ostrich eggs to 6 chicken eggs.
19. A building in Cape Town needs a fresh coat of paint. One side measures 50 feet by 27 feet. What is the area?

Write number sentences to find the areas. Answer the question.

20. A small storage shed nearby will be painted also. One side measures 9 feet by 9 feet. What is the area?

21. On a farm just outside of town chickens scratch in the dirt in their triangle-shaped pen. The triangle has a base of 4 meters and a height of 3 meters. What is the area of the pen?

22. What is the ratio of the base to the height?

Answer the question.

23. What is the temperature if it is \(-25^\circ \) and rises \(30^\circ \)?

--- Skill Builders + – × --- Write remainders as fractions. Write fraction answers in simplest form.

24. a. \( \frac{148}{592} \)  b. \( \frac{260}{604} \)  c. \( \frac{371}{826} \)  d. \( \frac{18}{32} \)  e. \( \frac{87}{5} \)

25. a. \( \frac{1}{7} \)  b. \( \frac{245}{24} \)  c. \( \frac{10106}{4208} \)  d. \( \frac{638}{8} \)  e. \( \frac{97}{4} \)
Comparing Numbers Across Zero

To compare numbers across zero you must picture where they belong on a number line.

When comparing two numbers, the number to the left on the number line is always smaller than the one to the right.

Compare -8 and -4.
Find -8 on the number line. Now find -4. -8 is to the left of -4.

Compare 2 and -5.

2 > -5 because 2 is to the right of -5.

Write < or >.

1. a. -3  
   b. -6  
   c. -19  
   d. -21

2. a. -15  
   b. -8  
   c. 11  
   d. -4

We Remember

Round to the nearest whole number.

3. a. 42.8  
   b. 1.4  
   c. 73.5  
   d. 9.3

Write the numbers.

4. The boiling point of water is _____F or _____C.

5. One gross is _____ things or _____ dozen.
Lesson 12

Skill Builders $\frac{+}{-} \times$

6. a. $384 \times 602$  
   b. $529 \times 741$  
   c. $5.17 \times 395$  
   d. $86 \times 24$

7. a. $9 \overline{)478}$  
   b. $6 \overline{)456}$  
   c. $7 \overline{)92}$  
   d. $4 \overline{)39}$

8. a. $\frac{1}{6} + 3\frac{5}{6}$  
   b. $76 \times 9$  
   c. $69 \times 90$  
   d. $96 \times 80$

Write the common factors from 2-10.

9. a. for 40 and 50  
   b. for 32 and 42

Write the missing numerator.

10. a. $\frac{7}{8} = \frac{48}{?}$  
    b. $\frac{2}{3} = \frac{36}{?}$  
    c. $\frac{6}{9} = \frac{27}{?}$  
    d. $\frac{5}{7} = \frac{14}{?}$

Round to the nearest ten.

11. a. 432  
    b. 1,967  
    c. 838

Measure the line segment to the quarter-inch.

12. _____ in
Lesson 12

Solve mentally.

13. 70 crates of apples with 300 pounds each = ________ pounds
14. 50 boxes of oranges with 100 in each = ________ oranges
15. 30 crates of potatoes with 20 bags in each = ________ bags of potatoes
16. 80 bushels of corn with 30 ears per bushel = ________ ears of corn
17. 100 cases of eggs with 1,500 eggs per case = ________ eggs

Write the numbers.

18. Forty-two million, two hundred eight thousand, five hundred fifty-two ________
19. One hundred twenty-six million, three hundred thousand __________

Name the rays.

20. ______  ______  ______

Complete the function chart.

21. 

<table>
<thead>
<tr>
<th>yards</th>
<th>1</th>
<th>5</th>
<th>2</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>feet</td>
<td>3</td>
<td>30</td>
<td>24</td>
<td>27</td>
</tr>
</tbody>
</table>

Multiply by 5 to make equal fractions.

22. a. \(\frac{2}{5} = \) ______  b. \(\frac{4}{9} = \) ______  c. \(\frac{1}{2} = \) ______  d. \(\frac{4}{5} = \) ______

— Mental Math . . . ? —

23. a. 7,000 \times 90 = \) ______  b. 600 \times 500 = \) ______  c. 49 + 27 = \) ______
24. a. 23.2 \times 10 = \) ______  b. 0.232 \times 1,000 = \) ______  c. 2.32 \times 100 = \) ______
25. 

\[ \begin{array}{c}
1.5 \\
\times 10 \\
-5 \\
\times 7 \\
+10 \\
\times 1,000 
\end{array} \]
Evangel’s mother often buys ostrich meat instead of mince (hamburger) because it is less expensive. One day she bought \( \frac{9}{10} \) of a kilogram of ostrich meat and \( \frac{4}{10} \) of a kilogram of mince. How many kilograms of meat did she buy? Remember to change your improper fraction to a mixed number.

\[
\text{My Work Space}
\]

Change the fractions above to decimals. Then use decimals to figure again how many kilograms of meat she bought. For example, \( \frac{9}{10} = 0.9 \)

\[
\text{My Work Space}
\]

The ostrich was 2.4 m tall. The giraffe was 2.9 m taller. How tall was the giraffe?

\[
\text{My Work Space}
\]

What is the ratio of the height of the giraffe to the height of the ostrich?

Change these mixed numbers to improper fractions.

30. a. \( 3\frac{4}{8} = \) _____
    b. \( 6\frac{2}{3} = \) _____
    c. \( 9\frac{1}{4} = \) _____
    d. \( 2\frac{5}{8} = \) _____

Find the area.

31. The children have their own little garden beside the family garden. It measures 4 ft by 4 ft. What is the area of their garden? _____

Write < or >.

32. a. -16 [ ] -9
    b. 22 [ ] -15
    c. 18 [ ] -21
    d. 24 [ ] 17