

5th
GRADE



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MATH
SUCCESS

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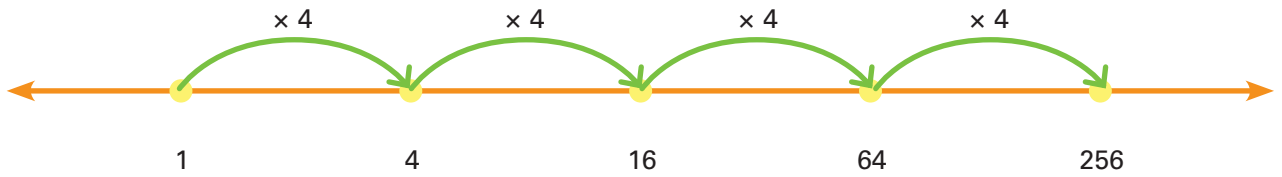
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Pattern Patch

MULTIPLY each number by the first number, and WRITE the missing numbers in each pattern.

Example:



$\times 4$

1 4 16 64 256

1.

$\times 2$

2 4

2.

$\times 2$

3 48

3.

$\times 3$

1 3

4.

$\times 3$

2 162

5.

$\times 5$

1 625

Multiplication Patterns

So Many Zeros

Factors are numbers that are being multiplied together, and the **product** is the result.

Find the product of the first number in each factor.
Next, count the total number of zeros in both factors.
Write the same number of zeros after the product of the first numbers.

30×500	=	_____
3×5	=	15
30×500	=	_____
30×500	=	15,000
3×5	=	15
3×50	=	150
30×50	=	1,500
30×500	=	15,000
300×500	=	150,000
$300 \times 5,000$	=	1,500,000



WRITE the products.

1. $8 \times 1 =$ _____
 $8 \times 10 =$ _____
 $80 \times 10 =$ _____
 $80 \times 100 =$ _____
 $800 \times 100 =$ _____
 $800 \times 1,000 =$ _____

2. $6 \times 7 =$ _____
 $6 \times 70 =$ _____
 $60 \times 70 =$ _____
 $60 \times 700 =$ _____
 $600 \times 700 =$ _____
 $600 \times 7,000 =$ _____

3. $2 \times 3 =$ _____
 $2 \times 30 =$ _____
 $20 \times 30 =$ _____
 $20 \times 300 =$ _____
 $200 \times 300 =$ _____
 $200 \times 3,000 =$ _____

4. $4 \times 9 =$ _____
 $4 \times 90 =$ _____
 $40 \times 90 =$ _____
 $40 \times 900 =$ _____
 $400 \times 900 =$ _____
 $400 \times 9,000 =$ _____

Picture It

Use the pictures to help you answer the problems. WRITE each product.

Example: $43 \times 6 = \underline{\quad 240 \quad}$

4 tens and 3 ones



$4 \text{ tens} \times 6 \text{ ones} = 24 \text{ tens, or } 240$

$3 \text{ ones} \times 6 \text{ ones} = 18 \text{ ones, or } 18$

When multiplying a two-digit number, think of it as tens and ones.

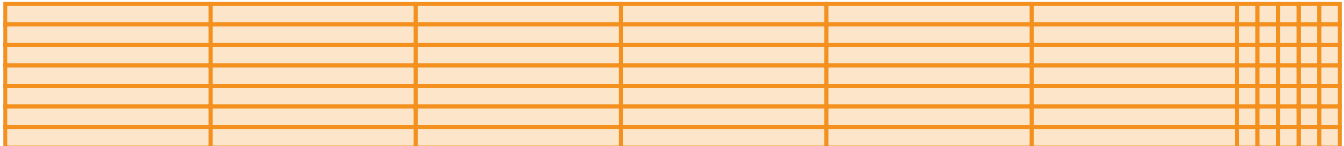
$240 + 18 = 258$

$43 \times 6 = 258$

1. $56 \times 3 = \underline{\quad \quad \quad}$



2. $65 \times 7 = \underline{\quad \quad \quad}$



3. $49 \times 8 = \underline{\quad \quad \quad}$



Multidigit Multiplication

Computation Station

Multiply a three-digit number by a one-digit number.

$$\begin{array}{r} 2 \\ 283 \\ \times 8 \\ \hline 4 \end{array}$$

Multiply the ones.
 $3 \times 8 = 24$

$$\begin{array}{r} 62 \\ 283 \\ \times 8 \\ \hline 64 \end{array}$$

Multiply the tens.
 $80 \times 8 = 640$
 $640 + 20 = 660$

$$\begin{array}{r} 6 \\ 283 \\ \times 8 \\ \hline 2,264 \end{array}$$

Multiply the hundreds.
 $200 \times 8 = 1,600$
 $1,600 + 600 = 2,200$

WRITE each product.

1. $\begin{array}{r} 45 \\ \times 3 \\ \hline \end{array}$

2. $\begin{array}{r} 52 \\ \times 6 \\ \hline \end{array}$

3. $\begin{array}{r} 13 \\ \times 7 \\ \hline \end{array}$

4. $\begin{array}{r} 74 \\ \times 4 \\ \hline \end{array}$

5. $\begin{array}{r} 68 \\ \times 8 \\ \hline \end{array}$

6. $\begin{array}{r} 34 \\ \times 5 \\ \hline \end{array}$

7. $\begin{array}{r} 227 \\ \times 7 \\ \hline \end{array}$

8. $\begin{array}{r} 589 \\ \times 2 \\ \hline \end{array}$

9. $\begin{array}{r} 644 \\ \times 5 \\ \hline \end{array}$

10. $\begin{array}{r} 356 \\ \times 8 \\ \hline \end{array}$

11. $\begin{array}{r} 995 \\ \times 7 \\ \hline \end{array}$

12. $\begin{array}{r} 447 \\ \times 4 \\ \hline \end{array}$

13. $\begin{array}{r} 739 \\ \times 9 \\ \hline \end{array}$

14. $\begin{array}{r} 253 \\ \times 6 \\ \hline \end{array}$

15. $\begin{array}{r} 172 \\ \times 8 \\ \hline \end{array}$

16. $\begin{array}{r} 929 \\ \times 4 \\ \hline \end{array}$

17. $\begin{array}{r} 684 \\ \times 5 \\ \hline \end{array}$

18. $\begin{array}{r} 865 \\ \times 9 \\ \hline \end{array}$

Computation Station

Multiply a two-digit number by a two-digit number.

$$\begin{array}{r} \overset{4}{97} \\ \times 46 \\ \hline 582 \end{array}$$

Multiply 97 by 6.

$$\begin{array}{r} \overset{2}{97} \\ \times 46 \\ \hline 582 \\ 80 \end{array}$$

Multiply 97 by 40, starting with the ones place.
 $7 \times 40 = 280$

$$\begin{array}{r} \overset{2}{97} \\ \times 46 \\ \hline 582 \\ 3,880 \end{array}$$

Next, multiply the tens place.
 $90 \times 40 = 3,600$
 $3,600 + 200 = 3,800$

$$\begin{array}{r} 97 \\ \times 46 \\ \hline 582 \\ + 3,880 \\ \hline 4,462 \end{array}$$

Then add 582 and 3,880.

WRITE each product.

1. $\begin{array}{r} 27 \\ \times 20 \\ \hline \end{array}$

2. $\begin{array}{r} 66 \\ \times 32 \\ \hline \end{array}$

3. $\begin{array}{r} 45 \\ \times 14 \\ \hline \end{array}$

4. $\begin{array}{r} 56 \\ \times 28 \\ \hline \end{array}$

5. $\begin{array}{r} 92 \\ \times 19 \\ \hline \end{array}$

6. $\begin{array}{r} 31 \\ \times 36 \\ \hline \end{array}$

7. $\begin{array}{r} 72 \\ \times 47 \\ \hline \end{array}$

8. $\begin{array}{r} 87 \\ \times 53 \\ \hline \end{array}$

9. $\begin{array}{r} 50 \\ \times 26 \\ \hline \end{array}$

10. $\begin{array}{r} 44 \\ \times 39 \\ \hline \end{array}$

11. $\begin{array}{r} 68 \\ \times 58 \\ \hline \end{array}$

12. $\begin{array}{r} 18 \\ \times 17 \\ \hline \end{array}$

13. $\begin{array}{r} 94 \\ \times 52 \\ \hline \end{array}$

14. $\begin{array}{r} 81 \\ \times 34 \\ \hline \end{array}$

15. $\begin{array}{r} 75 \\ \times 15 \\ \hline \end{array}$

16. $\begin{array}{r} 67 \\ \times 65 \\ \hline \end{array}$

17. $\begin{array}{r} 99 \\ \times 59 \\ \hline \end{array}$

18. $\begin{array}{r} 84 \\ \times 78 \\ \hline \end{array}$

Multidigit Multiplication

Computation Station

Multiply a three-digit number by a two-digit number.

$$\begin{array}{r} \\ 963 \\ \times 56 \\ \hline 5,778 \end{array}$$

Multiply 963 by 6.

$$\begin{array}{r} \\ 963 \\ \times 56 \\ \hline 5,778 \\ 50 \end{array}$$

Multiply 963 by 50, starting with the ones place.
 $3 \times 50 = 150$

$$\begin{array}{r} \\ 963 \\ \times 56 \\ \hline 5,778 \\ 150 \end{array}$$

Next, multiply the tens place.
 $60 \times 50 = 3,000$
 $3,000 + 100 = 3,100$

$$\begin{array}{r} \\ 963 \\ \times 56 \\ \hline 5,778 \\ 48,150 \end{array}$$

Next, multiply the hundreds place.
 $900 \times 50 = 45,000$
 $45,000 + 3,000 = 48,000$

$$\begin{array}{r} \\ 963 \\ \times 56 \\ \hline 5,778 \\ +48,150 \\ \hline 53,928 \end{array}$$

Then add 5,778 and 48,150.

WRITE each product.

1. $\begin{array}{r} 325 \\ \times 61 \\ \hline \end{array}$

2. $\begin{array}{r} 478 \\ \times 93 \\ \hline \end{array}$

3. $\begin{array}{r} 932 \\ \times 58 \\ \hline \end{array}$

4. $\begin{array}{r} 215 \\ \times 87 \\ \hline \end{array}$

5. $\begin{array}{r} 559 \\ \times 74 \\ \hline \end{array}$

6. $\begin{array}{r} 737 \\ \times 67 \\ \hline \end{array}$

7. $\begin{array}{r} 530 \\ \times 49 \\ \hline \end{array}$

8. $\begin{array}{r} 197 \\ \times 34 \\ \hline \end{array}$

9. $\begin{array}{r} 812 \\ \times 91 \\ \hline \end{array}$

10. $\begin{array}{r} 385 \\ \times 29 \\ \hline \end{array}$

11. $\begin{array}{r} 497 \\ \times 55 \\ \hline \end{array}$

12. $\begin{array}{r} 664 \\ \times 83 \\ \hline \end{array}$

13. $\begin{array}{r} 344 \\ \times 96 \\ \hline \end{array}$

14. $\begin{array}{r} 939 \\ \times 78 \\ \hline \end{array}$

15. $\begin{array}{r} 502 \\ \times 27 \\ \hline \end{array}$

16. $\begin{array}{r} 463 \\ \times 54 \\ \hline \end{array}$

17. $\begin{array}{r} 689 \\ \times 33 \\ \hline \end{array}$

18. $\begin{array}{r} 925 \\ \times 62 \\ \hline \end{array}$

Computation Station

Multiply a four-digit number by a three-digit number.

$$\begin{array}{r} 1\ 2\ 2 \\ 4,378 \\ \times 253 \\ \hline 13,134 \end{array}$$

Multiply 4,378 by 3.

$$\begin{array}{r} 1\ 3\ 4 \\ 4,378 \\ \times 253 \\ \hline 13,134 \\ 218,900 \end{array}$$

Multiply 4,378 by 50.

$$\begin{array}{r} 1\ 1 \\ 4,378 \\ \times 253 \\ \hline 13,134 \\ 218,900 \\ 875,600 \end{array}$$

Multiply 4,378 by 200.

$$\begin{array}{r} 4,378 \\ \times 253 \\ \hline 13,134 \\ 218,900 \\ +875,600 \\ \hline 1,107,634 \end{array}$$

Then add
13,134 + 218,900
+ 875,600.

WRITE each product.

1.
$$\begin{array}{r} 1,546 \\ \times 84 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 6,115 \\ \times 27 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 4,923 \\ \times 66 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 8,354 \\ \times 52 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 3,694 \\ \times 93 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 677 \\ \times 352 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 962 \\ \times 175 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 407 \\ \times 486 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 726 \\ \times 296 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 595 \\ \times 510 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 5,204 \\ \times 268 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 7,328 \\ \times 350 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 3,831 \\ \times 193 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 2,456 \\ \times 679 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 9,197 \\ \times 437 \\ \hline \end{array}$$

Multidigit Multiplication

Many Miles

WRITE the answers.

HINT: Multiply the number of miles by the number of days in the month.

If Marissa rides the same number of miles each day for a month or a year, how many miles would she ride?

1. 8 miles \times 31 days = 248 miles
2. 11 miles \times 28 days = _____ miles
3. 26 miles \times 31 days = _____ miles
4. 32 miles \times 30 days = _____ miles
5. 40 miles \times 31 days = _____ miles
6. 45 miles \times 30 days = _____ miles
7. 4 miles \times 365 days = _____ miles
8. 15 miles \times 365 days = _____ miles
9. 24 miles \times 365 days = _____ miles
10. 29 miles \times 365 days = _____ miles
11. 37 miles \times 365 days = _____ miles
12. 50 miles \times 365 days = _____ miles



Round About

Rounding numbers can help you estimate a product.

$$6,893 \rightarrow 7,000$$

6,893 rounded to the nearest thousand is 7,000.

$$\begin{array}{r} \times 795 \\ \hline \end{array} \rightarrow \begin{array}{r} \times 800 \\ \hline \end{array}$$

795 rounded to the nearest hundred is 800.

$$\begin{array}{r} \times 800 \\ \hline 5,600,000 \end{array}$$

$$7,000 \times 800 = 5,600,000$$

$$6,893 \times 795 = 5,479,935$$

ESTIMATE each product by rounding to the first digit and multiplying. WRITE the actual product to check your estimate.

1.
$$\begin{array}{r} 296 \\ \times 24 \\ \hline \end{array}$$

$$\begin{array}{r} \times \\ \hline \end{array}$$

2.
$$\begin{array}{r} 814 \\ \times 96 \\ \hline \end{array}$$

$$\begin{array}{r} \times \\ \hline \end{array}$$

3.
$$\begin{array}{r} 571 \\ \times 935 \\ \hline \end{array}$$

$$\begin{array}{r} \times \\ \hline \end{array}$$

4.
$$\begin{array}{r} 707 \\ \times 682 \\ \hline \end{array}$$

$$\begin{array}{r} \times \\ \hline \end{array}$$

5.
$$\begin{array}{r} 4,338 \\ \times 472 \\ \hline \end{array}$$

$$\begin{array}{r} \times \\ \hline \end{array}$$

6.
$$\begin{array}{r} 9,566 \\ \times 343 \\ \hline \end{array}$$

$$\begin{array}{r} \times \\ \hline \end{array}$$

The Mighty Marlock

The Mighty Marlock will guess any product, but he sometimes guesses incorrectly. ESTIMATE each product, and CROSS OUT any product that is clearly wrong.

$$775 \times 91 = 70,525$$

$$6,323 \times 972 = 6,145,956$$

$$199 \times 485 = 96,515$$

$$611 \times 281 = 1,821,851$$

$$2,594 \times 312 = 2,637,208$$

$$836 \times 17 = 44,952$$



Tic-Tac-Toe

CIRCLE any number that is a factor of the blue number. PUT an X through any number that is not a factor. DRAW a line when you find three factors in a row. The line can go across, down, or diagonally.

Example:

50

1	10	6
25	12	2
5	4	50

$$1 \times 50 = 50$$

$$25 \times 2 = 50$$

$$5 \times 10 = 50$$

The factors of 50 are 1, 2, 5, 10, 25, and 50.

12

3	7	5
8	6	4
12	10	2

18

4	1	2
12	8	9
3	10	6

24

14	12	16
9	5	4
6	8	3

40

4	6	5
12	20	10
2	3	7

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