



MATHEMATICS



Mastering 2-Digit by 2-Digit Multiplication

Learn to multiply two-digit numbers step-by-step!

Example: 45×38

Break it into steps!

Step 1: Multiply by the Ones

Multiply 45 by 8 (the ones place).



Multiply $45 \times 8 = 360$.

$$\begin{array}{r} 45 \\ \times 36 \\ \hline 360 \end{array}$$

Step 2: Multiply by the Tens

Multiply 45 by 30 (the tens place).

Multiply $45 \times 30 = 1350$.

$$\begin{array}{r} 45 \\ \times 30 \\ \hline 1350 \\ + 0 \text{ at the end.} \end{array}$$

Step 3: Add the Results

Add the two results together.

$$\begin{array}{r} 360 \\ + 1350 \\ \hline 1710 \end{array}$$

$2082 + 6940 = 8722$.



Think Deeper!

Why do we put a zero when multiplying by the tens place?

Mastering Multi-Digit Multiplication

Learn to multiply large numbers step-by-step!

Example: 347×26

Break it into steps!

Step 1: Multiply by the Ones

Multiply 347 by 6 (the ones place).



Multiply $347 \times 6 = 2082$.

$$\begin{array}{r} 347 \\ \times 26 \\ \hline 2082 \end{array}$$

Step 2: Multiply by the Tens

Multiply 347 by 20 (the tens place).

Multiply $347 \times 20 = 6940$.

$$\begin{array}{r} 347 \\ \times 20 \\ \hline 6940 \\ + 0 \text{ at the end.} \end{array}$$

Step 3: Add the Results

Add the two results together.

$$\begin{array}{r} 2082 \\ + 6940 \\ \hline 8722 \end{array}$$

$2082 + 6940 = 8722$.



Think Deeper!

Why do we add a zero when multiplying by the tens place?

MULTIPLICATION - MULTI DIGIT

SET 1

1

$$\begin{array}{r} 1 \\ \times 1 \\ \hline \end{array}$$

=

--	--

2

$$\begin{array}{r} 80 \\ \times 3 \\ \hline \end{array}$$

=

--	--	--

3

$$\begin{array}{r} 491 \\ \times 1 \\ \hline \end{array}$$

=

--	--	--	--

4

$$\begin{array}{r} 1 \\ \times 2 \\ \hline \end{array}$$

=

--	--

5

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

=

--	--	--

6

$$\begin{array}{r} 303 \\ \times 5 \\ \hline \end{array}$$

=

--	--	--	--

7

$$\begin{array}{r} 47 \\ \times 65 \\ \hline \end{array}$$

+

			0

=

--	--	--	--

8

$$\begin{array}{r} 31 \\ \times 94 \\ \hline \end{array}$$

+

			0

=

--	--	--	--

9

$$\begin{array}{r} 139 \\ \times 253 \\ \hline \end{array}$$

+

				0
			0	0

=

--	--	--	--	--	--

MULTIPLICATION - MULTI DIGIT

SET 2

1

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

=

--	--

2

$$\begin{array}{r} 26 \\ \times 8 \\ \hline \end{array}$$

=

--	--	--

3

$$\begin{array}{r} 353 \\ \times 5 \\ \hline \end{array}$$

=

--	--	--	--

4

$$\begin{array}{r} 79 \\ \times 59 \\ \hline \end{array}$$

+

=

--	--	--	--	--

5

$$\begin{array}{r} 46 \\ \times 37 \\ \hline \end{array}$$

+

=

--	--	--	--	--

6

$$\begin{array}{r} 612 \\ \times 322 \\ \hline \end{array}$$

+

=

--	--	--	--	--	--	--

7

$$\begin{array}{r} 45 \\ \times 85 \\ \hline \end{array}$$

+

=

--	--	--	--	--

8

$$\begin{array}{r} 50 \\ \times 41 \\ \hline \end{array}$$

+

=

--	--	--	--	--

9

$$\begin{array}{r} 400 \\ \times 596 \\ \hline \end{array}$$

+

=

--	--	--	--	--	--	--

MULTIPLICATION - MULTI DIGIT

SET 3

$$\begin{array}{r} 1 \quad 1 \\ \times 4 \\ \hline = \end{array}$$

$$\begin{array}{r} 2 \quad 65 \\ \times 5 \\ \hline = \end{array}$$

$$\begin{array}{r} 3 \quad 395 \\ \times 8 \\ \hline = \end{array}$$

$$\begin{array}{r} 4 \quad 47 \\ \times 96 \\ \hline + \end{array}$$

				0

$$=$$

--	--	--	--	--

$$\begin{array}{r} 5 \quad 16 \\ \times 13 \\ \hline + \end{array}$$

				0

$$=$$

--	--	--	--	--

$$\begin{array}{r} 6 \quad 270 \\ \times 306 \\ \hline + \end{array}$$

					0
				0	0

$$=$$

--	--	--	--	--	--

$$\begin{array}{r} 7 \quad 11 \\ \times 25 \\ \hline + \end{array}$$

				0

$$=$$

--	--	--	--	--

$$\begin{array}{r} 8 \quad 95 \\ \times 77 \\ \hline + \end{array}$$

				0

$$=$$

--	--	--	--	--

$$\begin{array}{r} 9 \quad 762 \\ \times 609 \\ \hline + \end{array}$$

					0
				0	0

$$=$$

--	--	--	--	--	--

MULTIPLICATION - MULTI DIGIT

SET 4

1

$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

=

--	--

2

$$\begin{array}{r} 49 \\ \times 8 \\ \hline \end{array}$$

=

--	--	--

3

$$\begin{array}{r} 116 \\ \times 7 \\ \hline \end{array}$$

=

--	--	--	--

4

$$\begin{array}{r} 74 \\ \times 77 \\ \hline \end{array}$$

+

				0

=

--	--	--	--	--

5

$$\begin{array}{r} 32 \\ \times 44 \\ \hline \end{array}$$

+

				0

=

--	--	--	--	--

6

$$\begin{array}{r} 939 \\ \times 732 \\ \hline \end{array}$$

+

					0
				0	0

=

--	--	--	--	--	--	--

7

$$\begin{array}{r} 50 \\ \times 35 \\ \hline \end{array}$$

+

				0

=

--	--	--	--	--

8

$$\begin{array}{r} 47 \\ \times 96 \\ \hline \end{array}$$

+

				0

=

--	--	--	--	--

9

$$\begin{array}{r} 829 \\ \times 801 \\ \hline \end{array}$$

+

					0
				0	0

=

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MULTIPLICATION - MULTI DIGIT

SET 5

1

$$\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$$

=

--	--

2

$$\begin{array}{r} 68 \\ \times 9 \\ \hline \end{array}$$

=

--	--	--

3

$$\begin{array}{r} 243 \\ \times 6 \\ \hline \end{array}$$

=

--	--	--	--

4

$$\begin{array}{r} 40 \\ \times 88 \\ \hline \end{array}$$

+

				0

=

--	--	--	--	--

5

$$\begin{array}{r} 70 \\ \times 18 \\ \hline \end{array}$$

+

				0

=

--	--	--	--	--

6

$$\begin{array}{r} 634 \\ \times 104 \\ \hline \end{array}$$

+

					0
				0	0

=

--	--	--	--	--	--	--

7

$$\begin{array}{r} 98 \\ \times 40 \\ \hline \end{array}$$

+

				0

=

--	--	--	--	--

8

$$\begin{array}{r} 71 \\ \times 19 \\ \hline \end{array}$$

+

				0

=

--	--	--	--	--

9

$$\begin{array}{r} 554 \\ \times 624 \\ \hline \end{array}$$

+

					0
				0	0

=

--	--	--	--	--	--	--