



GRADE 4 / WATCH MR DJ SOLVE

MULTIPLYING MULTI-DIGIT NUMBERS

Start with the same example used in the lesson slides.

**WATCH MR DJ SOLVE**

Estimate, then find 236×4 using partial products or an area model. Label each part and check your total.

- 1** Split 236 into place-value parts and multiply each by 4.
- 2** $236 \times 4 = 944$.
- 3** Combine the partial products to get 944. Check that your estimate has a sensible size.

Answer: **944**

REMEMBER Split factors into place-value parts. Multiply every part, label its value, and combine all partial products. Estimates help judge size.

Read each step and explain why it is valid. The next pages demonstrate the methods in more detail. Then use the large work areas on the numbered practice pages.

GRADE 4 / WORKED METHODS

MULTIPLYING MULTI-DIGIT NUMBERS

Read a complete example before trying the matching method.



Use these examples as a reference. Keep each quantity and its unit visible. A different valid method is welcome unless a question specifically requests one.

Multiply every place-value part

$236 \times 4 = 944$

1. Split 236 into $200 + 30 + 6$.
2. Find $4 \times 200 = 800$, $4 \times 30 = 120$ and $4 \times 6 = 24$.
3. Combine $800 + 120 + 24 = 944$. A check near $240 \times 4 = 960$ has the right size.

 236×4 : multiply all three parts

$$\begin{array}{r} 200 \times 4 \\ 800 \end{array}$$

$$\begin{array}{r} 30 \times 4 \\ 120 \end{array}$$

$$\begin{array}{r} 6 \times 4 \\ 24 \end{array}$$

$$800 + 120 + 24 = 944$$

GRADE 4 / WORKED METHODS

MULTIPLYING MULTI-DIGIT NUMBERS

Read a complete example before trying the matching method.



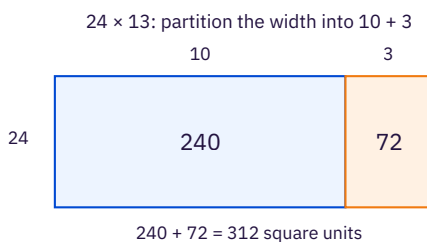
Use these examples as a reference. Keep each quantity and its unit visible. A different valid method is welcome unless a question specifically requests one.

Partition a two-digit by two-digit rectangle

$$24 \times 13 = 312$$

1. Split the width 13 into 10 and 3; keep height 24 for both parts.
2. Partial areas: $24 \times 10 = 240$ and $24 \times 3 = 72$.
3. Combine $240 + 72 = 312$. Splitting a rectangle preserves its total area.

$$\begin{array}{r} 24 \\ \times 13 \\ \hline 72 \quad (24 \times 3) \\ 240 \quad (24 \times 10) \\ \hline 312 \end{array}$$





Date _____

MULTIPLYING MULTI-DIGIT NUMBERS

A cartoon fox mascot with orange fur, large eyes, and a purple scarf, holding a yellow pencil.

1. Estimate, then find $1,028 \times 3$ using partial products or an area model. Label each part and check your total.

My answer / conclusion: _____



GRADE 4 / PRACTICE

MULTIPLYING MULTI-DIGIT NUMBERS

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

Mild 2. Estimate, then find 24×13 using partial products or an area model. Label each part and check your total.

Grid area for working out the multiplication problem.

My answer / conclusion: _____

GRADE 4 / PRACTICE

MULTIPLYING MULTI-DIGIT NUMBERS

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

Medium

3. Estimate, then find 37×24 using partial products or an area model. Label each part and check your total.

My answer / conclusion: _____



Date _____

MULTIPLYING MULTI-DIGIT NUMBERS

A cartoon fox mascot with orange fur, large eyes, and a purple scarf, holding a yellow pencil.

Medium 4. Estimate, then find 406×7 using partial products or an area model. Label each part and check your total.

My answer / conclusion: _____

GRADE 4 / PRACTICE

MULTIPLYING MULTI-DIGIT NUMBERS

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

Medium

5. Estimate, then find 58×36 using partial products or an area model. Label each part and check your total.

My answer / conclusion: _____



GRADE 4 / PRACTICE

MULTIPLYING MULTI-DIGIT NUMBERS

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

🔥🔥🔥 Spicy

6. A student finds $32 \times 14 = 128 + 32 = 160$. Correct the partial products and explain the tens.

Grid area for working out the problem.

My answer / conclusion: _____



Date _____

MULTIPLYING MULTI-DIGIT NUMBERS

A cartoon fox mascot with orange fur, large eyes, and a purple scarf, holding a yellow pencil.

Spicy 7. Without working out both products, explain how 29×6 differs from 30×6 . Then find 29×6 .

My answer / conclusion: _____

GRADE 4 / PRACTICE

MULTIPLYING MULTI-DIGIT NUMBERS

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

Extra Spicy 8. Sketch 24×15 as $24 \times (10 + 5)$, then as $(20 + 4) \times 15$. Explain why both decompositions must agree.

My answer / conclusion: _____