



GRADE 3 / WATCH MR DJ SOLVE

DIVISION AS A MISSING FACTOR

Start with the same example used in the lesson slides.

**WATCH MR DJ SOLVE**Use $3 \times ? = 12$ to solve $12 \div 3$.

- 1 Think 3 groups of what make 12?
- 2 $3 \times 4 = 12$.
- 3 $12 \div 3 = 4$.

Answer: **4****REMEMBER** solve division by finding a missing multiplication factor.

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 3 / WORKED METHODS

DIVISION AS A MISSING FACTOR

Read a complete example before trying the matching method.

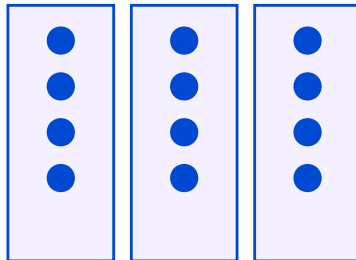


Use these examples as a reference. Keep each quantity and its unit visible. A different valid method is welcome unless a question specifically requests one.

A missing factor

$12 \div 3$ means $3 \times ? = 12$

1. Name the known total 12.
2. $3 \times 4 = 12$.
3. The quotient is 4.



3 groups of 4 = 12



GRADE 3 / WORKED METHODS

DIVISION AS A MISSING FACTOR

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.

The partner division fact

$$12 \div 4 = 3$$

1. Use $3 \times 4 = 12$.
2. Turn the array to see $4 \times 3 = 12$.
3. Divide 12 by 4 to get 3.

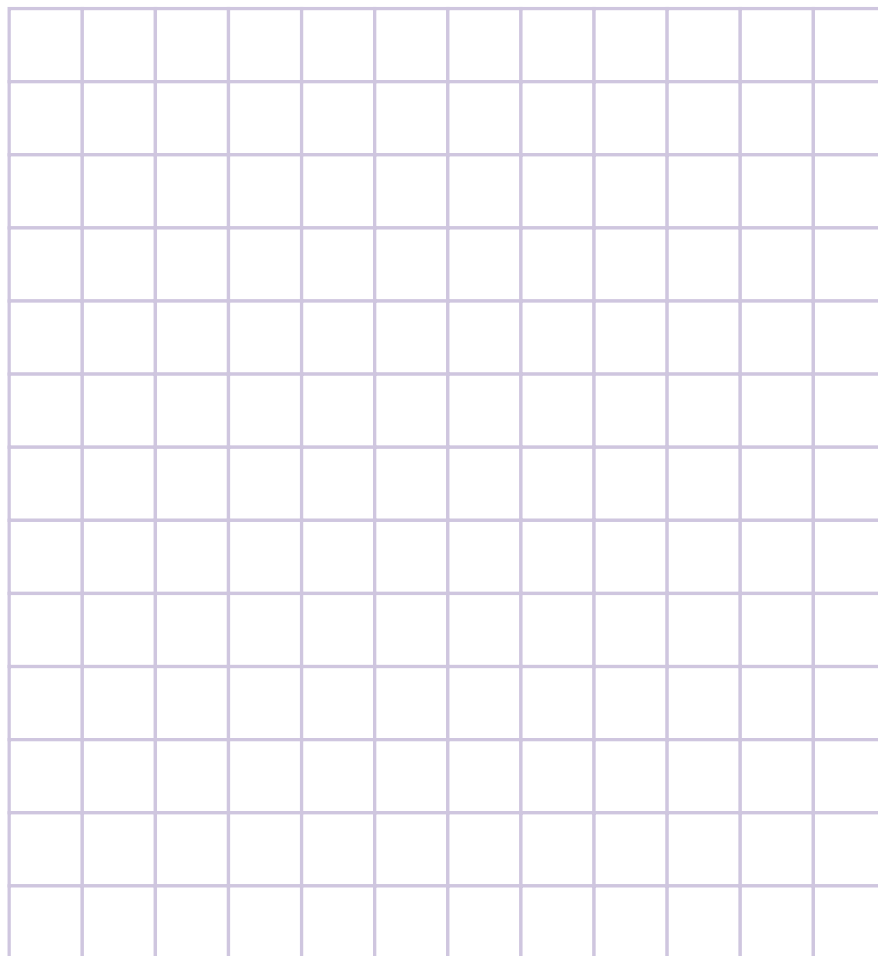
GRADE 3 / MATHEMATICAL WORK TOOL

DIVISION AS A MISSING FACTOR

Use labels and a clear scale.



Draw and label a model. Choose what one unit square means.





Date _____

DIVISION AS A MISSING FACTOR

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

1. Use a fact family to solve $12 \div 4$.

2. Write a multiplication check for $16 \div 4$.



GRADE 3 / PRACTICE

DIVISION AS A MISSING FACTOR

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. A shelf holds 12 books in 3 equal piles. Write a missing-factor equation.

Grid area for problem 3.

My answer / conclusion: _____

🔊 Medium

4. Write two division facts for $3 \times 5 = 15$.

Grid area for problem 4.

My answer / conclusion: _____



GRADE 3 / PRACTICE

DIVISION AS A MISSING FACTOR

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. Solve $20 \div 5$ with a drawing and multiplication.

My answer / conclusion: _____



Date _____

DIVISION AS A MISSING FACTOR

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

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.

6. Digit checks $12 \div 3 = 5$ by adding $3 + 5$. Give the right check.

My answer / conclusion: _____



GRADE 3 / PRACTICE

DIVISION AS A MISSING FACTOR

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

7. If $3 \times 4 = 12$, why does $12 \div 3$ find 4? Explain using equal groups.

Grid area for working out the answer.

My answer / conclusion: _____



Date _____

DIVISION AS A MISSING FACTOR

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

Extra Spicy 8. Choose a total of 12. Make a division problem and explain how a multiplication fact proves the answer.

My answer / conclusion: _____