

Solving with Order

Let's read to learn how the order of operations helps us solve math problems step by step.

Pay Attention To:

- What the order of operations is
- What steps are followed in the order of operations
- How parentheses affect the steps
- A math example that uses the order of operations

order of operations

order of operations

P parentheses
grouping symbols
 $() \{ \} []$

E exponents
 x^2

MD multiply and divide
 $\times \div$
left → right
whichever comes first

AS add and subtract
 $+ -$
left → right
whichever comes first

$(17 - 6 \div 2) + 4 \times 3$

① $(17 - 6 \div 2)$

② ↓

③ $(17 - 3)$

④ ↓

$14 + 4 \times 3$

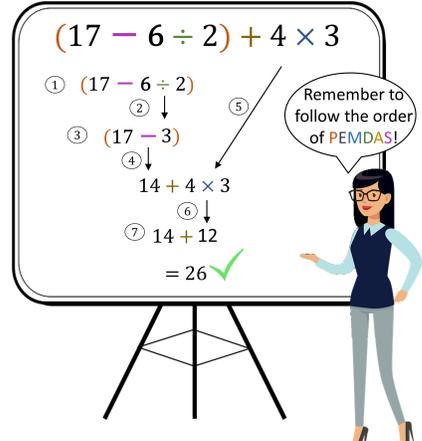
⑤ ↓

⑥ ↓

⑦ $14 + 12$

$= 26$ ✓

Remember to follow the order of PEMDAS!



[CCBY-SA 4.0] Areli Amador/Seidlitz Education. For image attribution, see www.thevisualnonglossary.com/att.html#M5085

In math, we follow a rule called the **order of operations**. This rule tells us which steps to do first, next, and last.

Look at this example: $5 + 3 \times 2$. We solve 3×2 first. That gives us 6. Then we do $5 + 6$. The answer is 11. We follow the **order of operations** to do this.

Sometimes, we use **parentheses** to show where to start. In $(5 + 3) \times 2$, we add first because of the **parentheses**. Then we multiply. The **parentheses** tell us what part comes first.

Following the **order of operations** helps us work through math problems in the right way.

Solving with Order

Let's read to learn how the order of operations helps us solve math problems step by step.

Pay Attention To:

- What the order of operations is
- What steps are followed in the order of operations
- How parentheses affect the steps
- A math example that uses the order of operations

order of operations

order of operations

P parentheses
grouping symbols
() {} []

E exponents
 x^2

MD multiply and divide
× ÷
left → right
whichever comes first

AS add and subtract
+ -
left → right
whichever comes first

$(17 - 6 \div 2) + 4 \times 3$

① $(17 - 6 \div 2)$

② ↓

③ $(17 - 3)$

④ ↓

$14 + 4 \times 3$

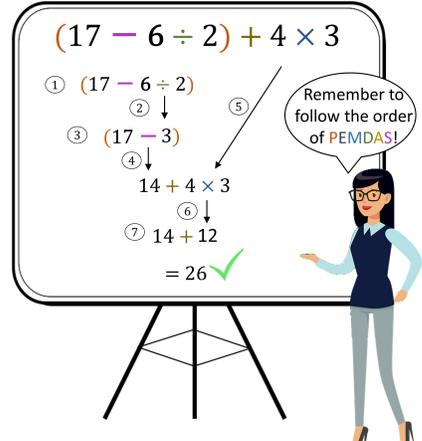
⑤ ↘

⑥ ↓

⑦ $14 + 12$

$= 26$ ✓

Remember to follow the order of PEMDAS!



[CCBY-SA 4.0] Areli Amador/Seidlitz Education. For image attribution, see www.thevisualnonglossary.com/att.html#M5085

When solving a math expression with more than one operation, it's important to follow a set of rules called the **order of operations**. These rules help us decide which step to do first, next, and last.

For example, in the expression $5 + 3 \times 2$, we begin with multiplication: 3×2 equals 6. Then we add $5 + 6$ to get 11. This sequence follows the correct **order of operations**.

Sometimes, expressions include **parentheses** to show which part to solve first. In $(5 + 3) \times 2$, the **parentheses** tell us to add before multiplying. Expressions can look similar but be solved differently depending on the placement of **parentheses**.

Using the **order of operations** helps people solve math expressions in a clear and consistent way.

Solving with Order

Let's read to learn how the order of operations helps us solve math problems step by step.

Pay Attention To:

- What the order of operations is
- What steps are followed in the order of operations
- How parentheses affect the steps
- A math example that uses the order of operations

order of operations

order of operations

P parentheses
grouping symbols
() {} []

E exponents
 x^2

MD multiply and divide
 \times \div
left → right
whichever comes first

AS add and subtract
 $+$ $-$
left → right
whichever comes first

(17 - 6 ÷ 2) + 4 × 3

① (17 - 6 ÷ 2)

② ↓

③ (17 - 3)

④ ↓

⑤ 14 + 4 × 3

⑥ ↓

⑦ 14 + 12

= 26 ✓

Remember to follow the order of PEMDAS!



[CCBY-SA 4.0] Areli Amador/Seidlitz Education. For image attribution, see www.thevisualnonglossary.com/att.html#M5085

Mathematical expressions often contain several operations. To solve them accurately, we use the **order of operations**—a set of steps that guide the correct order for solving.

Consider this expression: $5 + 3 \times 2$. The rule tells us to multiply first, so 3×2 equals 6. Then we add $5 + 6$ to get 11. This approach ensures consistency.

Now imagine a similar expression: $(5 + 3) \times 2$. Here, the **parentheses** signal a different starting point. We add $5 + 3$ first, then multiply the result by 2. The use of **parentheses** can shift how we approach and solve an expression.

The **order of operations** helps keep mathematical work organized and predictable.