Group First, Then Solve!

Using ( ) [ ] { } in math expressions



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DID YOU KNOW?

Same numbers can make different answers.

Grouping symbols like ( ) [ ] { } tell which part to solve first.





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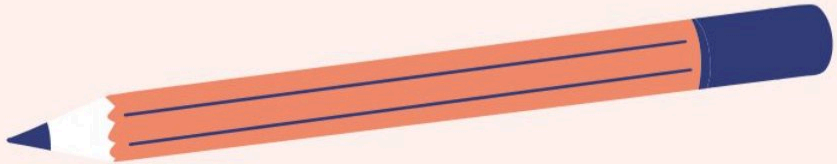
How to solve step by step

1. Find the innermost group first
2. Solve inside ( ) then [ ] then { }
3. Write the new number back in
4. Repeat until no groups are left



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Groups inside groups

Like boxes inside boxes. We always open the smallest one first.

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Which looks trickiest?

Which one would you want help with first?

A $(2 + 3) \times 4$

B $[10 - (2 + 3)] \div 5$

C $\{6 + [2 \times (3 + 1)]\}$



Vote with your hands, then explain why.

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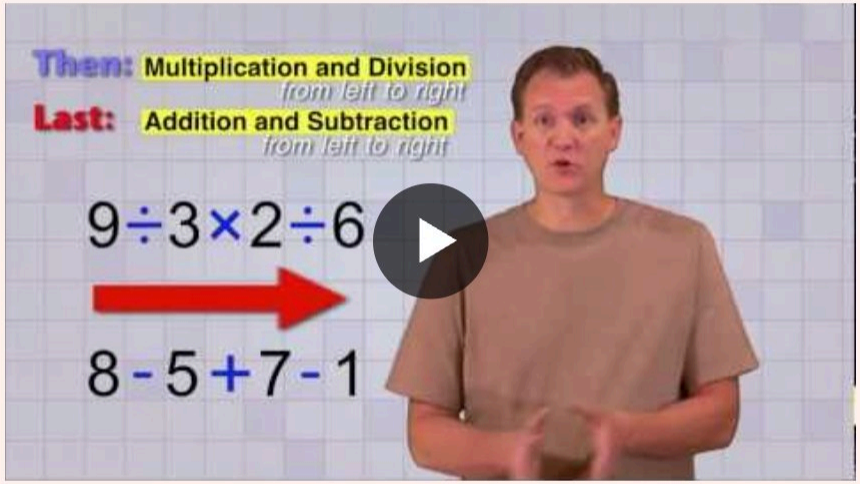
Watch: Why order matters



▶ 0:00 – 5:00

- Watch what ( ) changes
- Listen for do-inside-first

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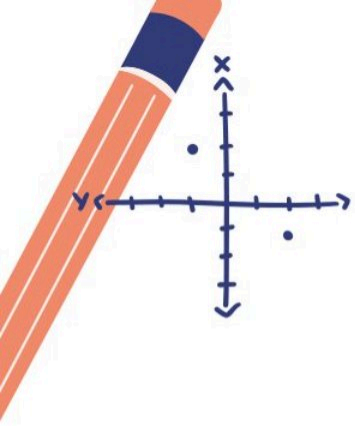

Same numbers, new answer

No group

- 2 + 3 x 4
- = 2 + 12
- = 14

With group

- (2 + 3) x 4
- = 5 x 4
- = 20

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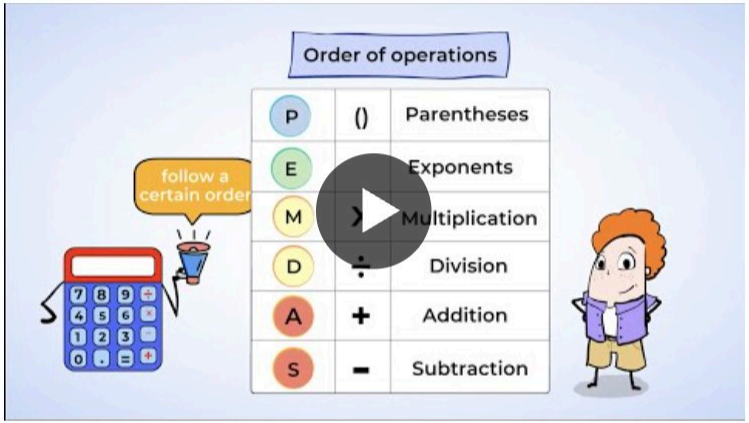
Watch: Meet [ ] and { }



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- Spot brackets [ ] and braces { }
- Watch how to work inside-out

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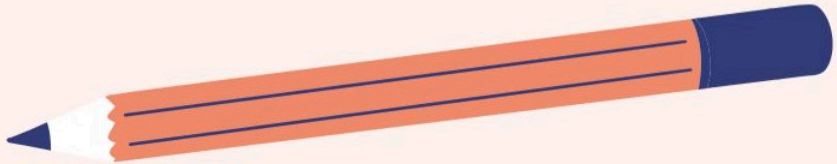
Your task

In pairs, evaluate four expressions and show each step: 1. (6+4)x3 2. [12-(2+4)] 3. {10+[2x3]} 4. 20-[(3+2)x2].

1. Solve the innermost group first
2. Write each new step below it
3. Circle the group you did first

10 min

In pairs



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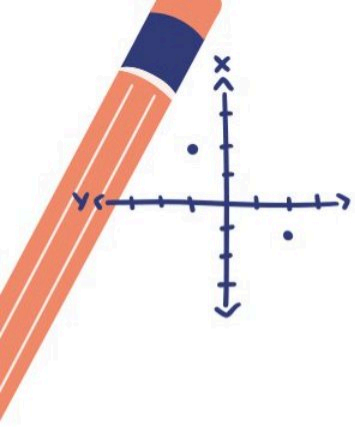

BIG IDEA

Always solve the inside group first, then work outward.

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Quick quiz

1. $(5 + 3) \times 2 = ?$
2. $10 - [4 - (1 + 1)] = ?$
3. What to do first in $\{2 + [3 \times (4 - 1)]\}$?



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