

Grade 5 - Numerical Expressions and Order of Operations - Worksheet

Common Core 5.OA.A.1, 5.OA.A.2 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

These 20 problems build your skill with the order of operations. You will evaluate expressions with parentheses, brackets and braces, write expressions from words, and compare an expression to its parts without calculating (Common Core 5.OA.A.1 and 5.OA.A.2).

The first problems are quick one-step checks. The last six are word problems that need one expression and more than one operation. Show every step on paper before you look at the answer key.

Grade 5 · Common Core State Standards: **5.OA.A.1, 5.OA.A.2**

Exercise 1 - Multiply before adding

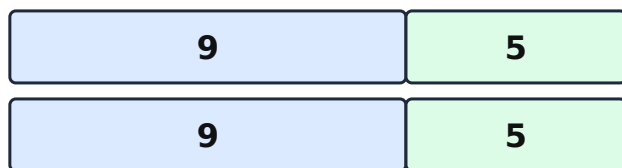
Evaluate $8+4\times 3$.

Exercise 2 - Divide before subtracting

Evaluate $20-6\div 2$.

Exercise 3 - Parentheses first

Evaluate $(9+5)\times 2$. The picture shows two groups of $9+5$.



Two groups of $9 + 5$.

Exercise 4 - Dividing by a sum

Evaluate $36 \div (2+4)$.

Exercise 5 - Two products

Evaluate $5 \times 6 - 4 \times 3$.

Exercise 6 - Left to right

Evaluate $48 \div 8 \times 3$.

Exercise 7 - Parentheses, then multiply

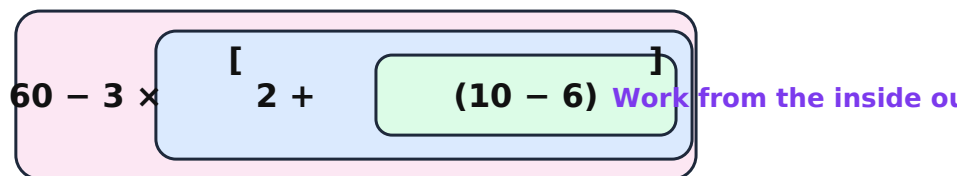
Evaluate $7 + (12 - 4) \times 2$.

Exercise 8 - Brackets and parentheses

Evaluate $2 \times [5 + (8 - 3)]$.

Exercise 9 - Three layers of grouping

Evaluate $60 - 3 \times [2 + (10 - 6)]$. The picture shows the groups inside each other.



The green group is innermost, so it is first.

Exercise 10 - Braces

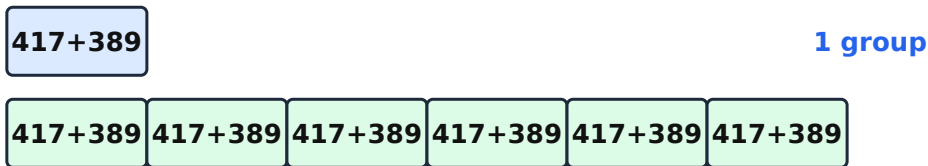
Evaluate $\{4 + [18 \div (3 \times 3)]\} \times 5$.

Exercise 11 - Parentheses then subtract

Evaluate $3 \times (14 + 6) - 10$.

Exercise 12 - Compare without calculating

Without calculating, tell which is greater: $6 \times (417 + 389)$ or $417 + 389$. Then tell how many times as large the greater one is.



Top: one group. Bottom: six groups.

Exercise 13 - Write: add, then multiply

Write an expression for this phrase. Do not evaluate it: add 9 and 6, then multiply by 4.



Four groups of 9 and 6.

Exercise 14 - Write: subtract, then divide

Write an expression for this phrase. Do not evaluate it: subtract 5 from 20, then divide by 3.

Exercise 15 - School store

Maya buys 5 notebooks that cost \$4 each and 1 pencil case that costs \$6. Write one expression for the total cost, then find the total.



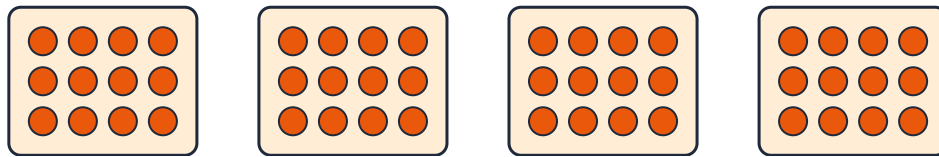
Price tags at the school store.

Exercise 16 - Trading cards

Jamal has 3 packs of 24 trading cards. He gives 18 cards to his cousin. Write one expression and find how many cards Jamal has left.

Exercise 17 - Bake sale cookies

Sofia bakes 4 trays with 12 cookies on each tray. She sets aside 6 cookies for the teachers. She shares the rest equally among 6 volunteers. Write one expression and find how many cookies each volunteer gets.



4 trays, 12 cookies on each tray.

Exercise 18 - Sticker rows

Ethan has 18 stickers and gets 7 more. He puts all of them in 5 equal rows. Write one expression and find how many stickers are in each row.

Exercise 19 - Twice the sum

Priya writes the number sentence: twice the sum of 15 and 9, minus 8. Write it as one expression and evaluate it.

Exercise 20 - Find Diego's mistake

Diego evaluates $6+4\times 5$ and gets 50. Explain his mistake and find the correct value.

$$\text{Diego: } 6 + 4 \times 5 = 10 \times 5 = 50$$

Diego's work.