

Grade 5 · Numerical Expressions · Worksheet

Common Core 5.OA.A.1, 5.OA.A.2 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

These 24 problems practice Common Core 5.OA.A.1 and 5.OA.A.2. Students evaluate expressions with parentheses, brackets, and braces, insert grouping symbols, and write expressions that record a calculation.

The problems go from one pair of parentheses to three nested layers, then to words and money. Every answer is worked out in the answer key.

Grade 5 Common Core: 5.OA.A.1 · 5.OA.A.2

Problem 1: Add, then multiply

Evaluate $(8+4) \times 3$.

$$\boxed{(8 + 4)} \times 3$$

↑
start here

Work the group first.

Problem 2: Subtract a sum

Evaluate $30 - (12 + 6)$.

Problem 3: Subtract, then multiply

Evaluate $5 \times (9 - 4)$.

Problem 4: Divide by a sum

Evaluate $48 \div (2 + 4)$.

Problem 5: Same numbers, different value

Evaluate both expressions: $4 \times (6 + 3)$ and $4 \times 6 + 3$. Then explain why the values differ.

$$4 \times (6 + 3)$$


$$4 \times 6 + 3$$


Only the 6 is multiplied in the second bar.

Two bar models built from the numbers 4, 6, and 3.

Problem 6: Brackets around parentheses

Evaluate $3 \times [10 - (2 + 3)]$.

Problem 7: Brackets, then divide

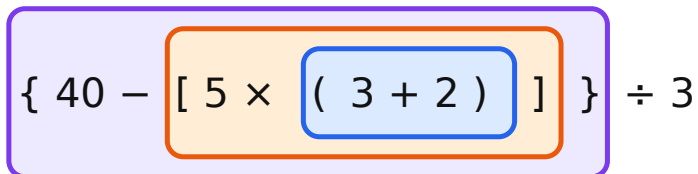
Evaluate $[18 + (6 \times 4)] \div 7$.

Problem 8: Subtract a bracket

Evaluate $50 - [4 \times (2 + 3)]$.

Problem 9: Braces, brackets, and parentheses

Evaluate $\{40 - [5 \times (3 + 2)]\} \div 3$.



 () parentheses
 [] brackets
 { } braces

Three layers: start in the blue one.

Problem 10: Multiply a braces group

Evaluate $2 \times \{30 - [4 \times (3 + 2)]\}$.

Problem 11: Two groups multiplied

Evaluate $(7 + 5) \times (9 - 6)$.

Problem 12: Two groups subtracted

Evaluate $(36 \div 4) - (2 \times 3)$.

Problem 13: Insert parentheses, sum first

Copy the equation and insert one pair of parentheses to make it true: $4+6\times 3=30$.

Problem 14: Insert parentheses, difference first

Copy the equation and insert one pair of parentheses to make it true: $20-8\div 4=3$.

Problem 15: Add, then double

Write an expression for "add 8 and 7, then multiply by 2." Do not evaluate it.

$$8 + 7 \quad \boxed{8} \quad \boxed{7} \quad \text{add first}$$

The two numbers 8 and 7 are added first.

Problem 16: Subtract, then divide

Write an expression for "subtract 6 from 20, then divide by 7."

Problem 17: Triple a sum

Write an expression for "triple the sum of 12 and 9."

Problem 18: Divide by a difference

Write an expression for "divide 45 by the difference of 11 and 6."

Problem 19: Compare without calculating

Without evaluating, tell how $3\times(18+5)$ compares with $18+5$. Use the words "times as large."

$$\begin{array}{lcl} 18 + 5 & \boxed{18} \quad \boxed{5} & \text{one group} \\ 3 \times (18 + 5) & \boxed{18} \quad \boxed{5} \\ & \boxed{18} \quad \boxed{5} \\ & \boxed{18} \quad \boxed{5} \end{array}$$

The group $18+5$ and three copies of it.

Problem 20: Half of a sum

Without evaluating, tell how $\frac{1}{2}\times(36+18)$ compares with $36+18$.

Problem 21: Little League roster

A Little League has 6 teams. Each team has 12 players and 2 coaches. Write one expression for the number of people in the league, then evaluate it.

Team 1	12	2	6 teams
Team 2	12	2	
Team 3	12	2	
Team 4	12	2	
Team 5	12	2	
Team 6	12	2	

Each team is a group of $12+2$.

Problem 22: School store stickers

Maya buys 4 sticker packs at \$3 each and a card for \$5. She uses a \$2 coupon. Write one expression for the amount she pays, then evaluate it.

Problem 23: Spending from \$50

Ethan has \$50. He buys 3 shirts at \$9 each and 2 hats at \$6 each. Write one expression for the money he has left, then evaluate it.

Problem 24: Find the mistake

Diego says that $5 \times (8 - 3) = 37$. Find his mistake and give the correct value.