

Grade 5 · Numerical Expressions · Quiz

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

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

Ten multiple-choice questions check the main ideas of numerical expressions: evaluating with parentheses, brackets, and braces, writing expressions from words, and interpreting them. Pick the single best answer, then read the explanation to learn from any miss.

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

Questions

Question 1

What is $6 \times (4 + 3)$?

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

Step 1: group first

$$7$$

Step 2: then multiply

$$6 \times 7 = 42$$

Group first.

- A. 42
- B. 27
- C. 13
- D. 72

Question 2

What is $50 - (12 + 8)$?

- A. 46
- B. 70
- C. 30
- D. 38

Question 3

Which expression means "subtract 9 from 30, then divide by 3"?

- A. $30 - 9 \div 3$
- B. $(30 - 9) \div 3$
- C. $3 \div (30 - 9)$
- D. $30 \div (9 - 3)$

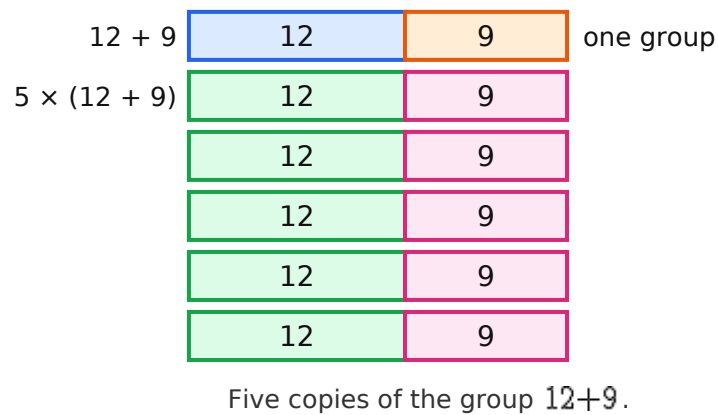
Question 4

What is $2 \times \{10 + [12 \div (2 + 4)]\}$?

- A. 22
- B. 36
- C. 24
- D. 40

Question 5

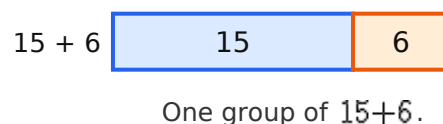
Which statement about $5 \times (12 + 9)$ is true without evaluating it?



- A. It is 5 more than $12 + 9$.
- B. It is 5 times as large as $12 + 9$.
- C. It is equal to $5 \times 12 + 9$.
- D. It is 5 times as large as 12.

Question 6

Which expression is 4 times as large as $15 + 6$?



- A. $4 \times 15 + 6$
- B. $4 + (15 + 6)$
- C. $(15 + 6) \div 4$
- D. $4 \times (15 + 6)$

Question 7

Sofia buys 3 pencils, a notebook, and uses a coupon. What does she pay?

☐ **3 pencils**
each

☐ **1 notebook**

☐ **coupon**
take off

Prices and coupon.

Question 8

Where do parentheses make $9+3\times 2=24$ true?

- A. $9+(3\times 2)$
- B. $9\times(3+2)$
- C. $(9+3\times 2)$
- D. $(9+3)\times 2$

Question 9

What is $(36\div 4)+(2\times 3)$?

- A. 18
- B. 15
- C. 33
- D. 4

Question 10

Jamal says $20-(6+4)=18$. What is the correct value?

- A. 18
- B. 30
- C. 22
- D. 10

Answer key

1. **A** - Add inside the parentheses first: $4+3=7$, then $6\times 7=42$. Multiplying only the 4 gives 27, a common mistake.
2. **C** - The sum $12+8=20$ is subtracted as one amount: $50-20=30$. Subtracting 12 and then adding 8 gives 46.
3. **B** - The subtraction happens first, so it needs parentheses. Without them, only the 9 is divided by 3.
4. **C** - Work from the inside: $2+4=6$, $12\div 6=2$, $10+2=12$, $2\times 12=24$.
5. **B** - The whole sum $12+9$ is multiplied by 5, so the expression is 5 times that sum. $5\times 12+9$ is different because 5 multiplies only the 12.
6. **D** - To make the whole sum 4 times as large, multiply the sum by 4. $4\times 15+6$ multiplies only the 15.
7. **A** - Total: $3\times 2+5-1=6+5-1=10$. Forgetting the coupon gives .
8. **D** - $(9+3)\times 2=12\times 2=24$. The other placements give 15, 45, and 15.
9. **B** - Evaluate each group: $36\div 4=9$ and $2\times 3=6$. Then $9+6=15$.
10. **D** - Add inside the parentheses first: $6+4=10$, then $20-10=10$. Jamal computed $20-6+4$.

Remember:

- Parentheses (), brackets [], and braces { } are grouping symbols that mean "do this first."
- Work inside the innermost pair first, then multiply and divide, then add and subtract.
- A numerical expression has no equal sign; evaluating it gives one number.
- Phrases such as "the sum of" or "the difference of" name a chunk that needs parentheses.
- You can compare $3\times(18+5)$ with $18+5$ without calculating: it is 3 times as large.