

Grade 5 - Numerical Expressions and Order of Operations - Quiz

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

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

Answer these 10 multiple-choice questions on the order of operations. Choose the one best answer for each question. Some questions have pictures to help. Check the explanation after each answer to learn from any mistake.

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

Questions

Question 1

What is the value of $9+3\times 4$?

- A. 48
- B. 16
- C. 21
- D. 12

Question 2

What is the value of $40-2\times(6+4)$?

- A. 20
- B. 380
- C. 32
- D. 60

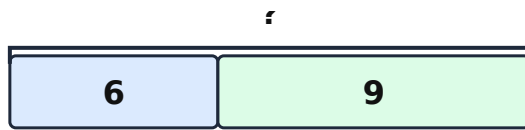
Question 3

What is the value of $36\div 6\times 2$?

- A. 3
- B. 12
- C. 6
- D. 216

Question 4

Which expression matches the words: add 6 and 9, then multiply by 3?



Tape for 6 and 9.

- A. $3 \times (6+9)$
- B. $3 \times 6 + 9$
- C. $6 + 9 \times 3$
- D. $3 + 6 + 9$

Question 5

What is the value of $2 \times [3 + (8 - 5)]$?

- A. 9
- B. 12
- C. 17
- D. 6

Question 6

Without calculating, how does $5 \times (24 + 16)$ compare with $24 + 16$?



One group above five groups.

- A. It is 5 more
- B. They are equal
- C. It is one fifth as large
- D. It is 5 times as large

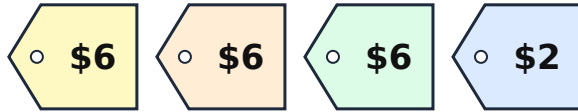
Question 7

What is the value of $\{10 + [24 \div (2 \times 4)]\} \times 2$?

- A. 16
- B. 26
- C. 13
- D. 68

Question 8

Ethan buys 3 sandwiches for \$6 each and one drink for \$2. How much does he pay?



Ethan's items.

- A. \$24
- B. \$15
- C. \$11
- D. \$20

Question 9

What is the value of $18 - 6 + 4$?

- A. 8
- B. 28
- C. 16
- D. 24

Question 10

A student wrote $4 + 6 \times 2 = 20$. What is the mistake?

- A. She added before multiplying; the value is 16
- B. She multiplied before adding; the value is 16
- C. She should divide first; the value is 5
- D. Nothing is wrong; the value is 20

Answers

1. **C** - Multiply first: $3 \times 4 = 12$, then $9 + 12 = 21$. Adding first gives 48, which is the common mistake.
2. **A** - Parentheses first: $6 + 4 = 10$. Then $2 \times 10 = 20$ and $40 - 20 = 20$. Ignoring the parentheses gives 32.
3. **B** - Divide and multiply from left to right: $36 \div 6 = 6$, then $6 \times 2 = 12$. Multiplying first gives 3.
4. **A** - The addition comes first, so it needs parentheses: $3 \times (6 + 9)$. Without parentheses the multiplication would happen first.
5. **B** - Inside out: $8 - 5 = 3$, then $3 + 3 = 6$, then $2 \times 6 = 12$.
6. **D** - $5 \times (24 + 16)$ is five groups of $24 + 16$, so it is 5 times as large.
7. **B** - $2 \times 4 = 8$, $24 \div 8 = 3$, $10 + 3 = 13$, and $13 \times 2 = 26$. Forgetting the last step gives 13.
8. **D** - The expression is $3 \times 6 + 2 = 18 + 2 = 20$. Adding $6 + 2$ first gives \$24, which is wrong.
9. **C** - Subtract and add from left to right: $18 - 6 = 12$, then $12 + 4 = 16$. Adding $6 + 4$ first gives 8.
10. **A** - Multiplication comes before addition: $6 \times 2 = 12$, then $4 + 12 = 16$.

Remember

- Do grouping symbols (), [] and { } first, from the inside out.
- Multiplication and division share one level: work left to right.
- Addition and subtraction share one level: work left to right.
- Words like add first, then multiply need parentheses when you write them as an expression.
- An expression like $3 \times (5 + 7)$ is 3 times as large as $5 + 7$.