

Grade 6 - Exponents and Order of Operations - Quiz

Common Core 6.EE.A.1, 6.EE.A.2c · maths-pdf.fr/en/

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

This quiz has 10 multiple-choice questions on exponents and the order of operations (Common Core 6.EE.A.1 and 6.EE.A.2c). Pick one answer for each and read the explanation to find the common mistakes.

Grade 6 · Common Core State Standards: **6.EE.A.1**, **6.EE.A.2c**

Questions

Question 1

Which is equal to 4^3 ?

- A. 12
- B. 81
- C. 7
- D. 64

Question 2

What is $2+3\times 4$?

- A. 20
- B. 14
- C. 24
- D. 10

Question 3

What is the value of 5^2-3^2 ?

- A. 16
- B. 4
- C. 2
- D. 64

Question 4

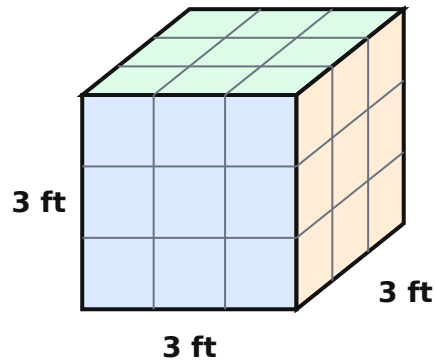
What is x^2+1 when $x=5$?

- A. 36

- B. 26
- C. 11
- D. 10

Question 5

What is the volume of this cube?



Cube.

- A. 9 cubic feet
- B. 18 cubic feet
- C. 12 cubic feet
- D. 27 cubic feet

Question 6

What is $\left(\frac{1}{3}\right)^2$?

- A. $\frac{1}{9}$
- B. $\frac{1}{3}$
- C. $\frac{1}{6}$
- D. $\frac{1}{2}$

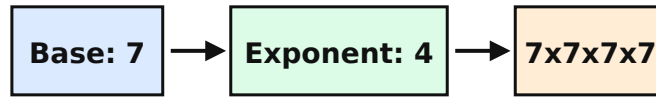
Question 7

What is $20 \div (2+3) \times 2$?

- A. 8
- B. 2
- C. 12
- D. 22

Question 8

Which is the base in 7^4 ?



Parts of a power.

- A. 4
- B. 28
- C. 7
- D. 11

Question 9

What is $3\alpha - 2$ when $\alpha = 6$?

- A. 4
- B. 20
- C. 16
- D. 36

Question 10

What is 10^4 ?

Power	10^2	10^3	10^4
Value	100	1,000	?

Powers of 10.

- A. 10,000
- B. 40
- C. 1,000
- D. 100,000

Answers

1. **D** - $4 \times 4 \times 4 = 64$. 12 is 4×3 .
2. **B** - Multiply first: $3 \times 4 = 12$, then $2 + 12 = 14$. Left-to-right gives 20.
3. **A** - $25 - 9 = 16$. Squaring $(5 - 3)$ gives 4, which is a different expression.
4. **B** - $5^2 = 25$, $25 + 1 = 26$. Computing $(x + 1)^2$ gives 36.
5. **D** - $V = 3^3 = 27$. The value 9 is 3^2 , and 18 is 3×6 .
6. **B** - $1/3 \times 1/3 = 1/9$.
7. **A** - Parentheses: 5. Then $20 \div 5 = 4$ and $4 \times 2 = 8$.
8. **C** - The base is the number being multiplied: 7. The exponent 4 tells how many factors.
9. **C** - $3 \times 6 - 2 = 16$.
10. **A** - 10^4 has four zeros.

Remember

- In b^n , the base b is used as a factor n times.
- Squares and cubes: $3^2 = 9$ and $2^3 = 8$.
- Order of operations: parentheses, exponents, multiply or divide, add or subtract.
- Powers of 10 have as many zeros as the exponent.
- To evaluate an expression with a variable, substitute then follow the order of operations.