

Grade 6 · Exponents and Order of Operations · Quiz

Common Core 6.EE.A.1, 6.EE.A.2c · mathovore.fr

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

This 10-question multiple-choice quiz checks exponents, powers of 10, and the order of operations from Grade 6 (6.EE.A.1 and 6.EE.A.2c). Choose one answer for each question, then read the explanation to learn from any mistake.

Grade 6 Common Core: 6.EE.A.1 · 6.EE.A.2c

Questions

Question 1

What is the value of 2^5 ?

- A. 32
- B. 10
- C. 25
- D. 16

Question 2

What is the value of 10^4 ?

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

Question 3

Which product equals 3^3 ?

- A. $3+3+3$
- B. $3 \times 3 \times 3$
- C. 3×3
- D. $3 \times 3 \times 3 \times 3$

Question 4

What is the value of $8+12 \div 4$?

- A. 5
- B. 3
- C. 11
- D. 20

Question 5

What is the value of 2×5^2 ?

- A. 50
- B. 100
- C. 20
- D. 12

Question 6

What is the value of $36 \div 6 \times 3$?

36	$\div$	6	$\times$	3
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Work from left to right.

- A. 2
- B. 6
- C. 108
- D. 18

Question 7

What is the value of $(4+2)^2$?

$(4 + 2)^2$

Expression to evaluate.

- A. 8
- B. 12
- C. 36
- D. 18

Question 8

What is the value of $50 - 3^2 \times 4$?

- A. 26
- B. 164

- C. 86
- D. 14

Question 9

Which number equals 10^6 ?

- A. 1,000,000
- B. 100,000
- C. 10,000,000
- D. 60

Question 10

Diego has 2 boxes with 4^2 trading cards in each. How many cards does he have in all?



Diego's two boxes of cards.

- A. 64 cards
- B. 32 cards
- C. 16 cards
- D. 8 cards

Answer key

1. **A** - $2^5 = 2 \times 2 \times 2 \times 2 \times 2 = 32$. The mistake 10 comes from multiplying 2×5 .
2. **C** - 10^4 is a 1 followed by four zeros, which is 10,000. Multiplying 10×4 gives the common wrong answer 40.
3. **B** - The exponent 3 means three factors of 3. Adding $3 + 3 + 3$ confuses a power with repeated addition.
4. **C** - Divide first: $12 \div 4 = 3$, then $8 + 3 = 11$. Adding first gives the wrong answer 5.
5. **A** - Square only the 5: $5^2 = 25$, then $2 \times 25 = 50$. Squaring 2×5 gives the mistaken 100.
6. **D** - Work left to right: $36 \div 6 = 6$, then $6 \times 3 = 18$. Multiplying first gives $36 \div 18 = 2$.
7. **C** - Add inside the parentheses to get 6, then square it: 36. Squaring only the 2 gives $4 + 4 = 8$.
8. **D** - $3^2 = 9$, $9 \times 4 = 36$, and $50 - 36 = 14$. Subtracting first gives the mistaken 164.
9. **A** - 10^6 has six zeros after the 1, so it is 1,000,000. The wrong answer 60 comes from multiplying 10×6 .
10. **B** - Each box has $4^2 = 16$ cards, so $2 \times 16 = 32$. Squaring 2×4 gives the mistaken 64.

Remember:

- In b^n , the base b is multiplied by itself n times, so $3^4 = 81$, not 12.
- A power of 10 has as many zeros as its exponent: $10^5 = 100,000$.
- PEMDAS order: Parentheses, Exponents, Multiplication and Division (left to right), Addition and Subtraction (left to right).
- An exponent affects only the base next to it: $2 \times 3^2 = 18$, but $(2 \times 3)^2 = 36$.