

Grade 6 - Exponents and Order of Operations - Test

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

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

This 45-minute test has 9 questions worth 20 points. It covers powers, order of operations, evaluating expressions with variables, and formulas such as cube volume (Common Core 6.EE.A.1 and 6.EE.A.2c). Show your steps.

About this test

- Grade: Grade 6
- Chapter: Exponents and Order of Operations
- Standards: 6.EE.A.1, 6.EE.A.2c
- Time: 45 minutes
- Total: 20 points

Question 1 - Write and evaluate powers [2 pts]

- Write $7 \times 7 \times 7$ as a power.
- Evaluate 2^6 .

Question 2 - Evaluate powers [2 pts]

- Evaluate 5^3 .
- Evaluate $\left(\frac{2}{3}\right)^2$.

Question 3 - Order of operations [2 pts]



Order of operations.

Evaluate $30 - 4 \times 3 + 2$.

Question 4 - Exponents in order of operations [2 pts]

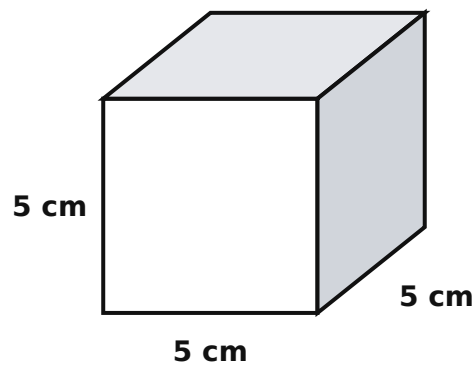
Evaluate $2 \times 3^2 + 8 \div 4$.

Question 5 - Parentheses [2 pts]

Evaluate $(9 - 3)^2 \div 4$.

Question 6 - Substitution [2 pts]

Evaluate $4n^2 - 7$ when $n = 3$.

Question 7 - Cube volume [2 pts]

A cube.

Use $V = s^3$ to find the volume of a cube with edge length 5 centimeters.

Question 8 - Formula [3 pts]

Hours (h)	2	5	8
Cost	?	?	?

Equipment rental.

The cost in dollars to rent a kayak is $C = 15 + 4h$, where h is the number of hours. Find the cost for 2, 5, and 8 hours.

Question 9 - Multi-step expression [3 pts]

Maya evaluated $5 + 3 \times 2^3$ as 64. Find the correct value, and explain Maya's mistake.