

Math 9 - Practice Test - Unit 2

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- Write the base of $-(-5)^3$.
 - 5
 - 5
 - -5×3
 - 3
- Evaluate: 6^5 .
 - 30
 - 7776
 - 15 625
 - 11
- Evaluate: -4^4 .
 - 256
 - 16
 - 16
 - 256
- Write 1 000 000 as a power of 10.
 - $(1 \times 10^6) + (1 \times 10^5) + (1 \times 10^4) + (1 \times 10^2) + (1 \times 10^1) + (1 \times 10^0)$
 - 10^5
 - $(10 \times 10^5) + (10 \times 10^4) + (10 \times 10^2) + (10 \times 10^1) + (10 \times 10^0)$
 - 10^6
- Write $(3 \times 10^4) + (5 \times 10^3) + (7 \times 10^2) + (4 \times 10^1) + (6 \times 10^0)$ in standard form.
 - 35 746
 - 3574
 - 35 741
 - 35 740
- Write $(5 \times 10^4) + (8 \times 10^1) + (9 \times 10^2) + (6 \times 10^0)$ in standard form.
 - 50 980
 - 50 986
 - 50 981
 - 5986
- Evaluate: $(3 + 4)^2 - (2 - 4)^3$.
 - 31
 - 57
 - 20
 - 41
- Which power is positive?
 - $(6)^5$
 - $(-6)^5$
 - $-(6)^5$
 - $-(-6)^5$
 - i and iv
 - iii and iv
 - i, ii, and iv
 - i and ii
- Evaluate: 10^7 .
 - 100 000 000
 - 10 000 000
 - 1 000 000
 - 70
- Which is the correct value of $3^2 + 4 \times 6 - 4$?
 - 26
 - 17
 - 29
 - 74
 - i
 - iii
 - iv
 - ii

11. Which expression has a value of 0?
- $-(-7)^0 + 2 \times (-5)^0 - (-4)^0$
 - $(7 \times 5)^0 - (5 - 4)^2 + (8 - 5)^0$
 - $5 - (4 \div 4)^2 - (-8)^0$
 - $(4 \times 4 \div 8) - (5^2 - 7^2)^0 - (-7)^0$
- ii and iii
 - i, iii, and iv
 - i, ii, and iv
 - i and iv
12. Evaluate: $(-8)^4 \div (-8)^4$
- 8
 - 1
 - 1
 - 0
13. Evaluate: $10^2 \times 10^5 + 10^5$
- 10 100 000
 - 1 000 000 000 000
 - 120
 - 10 000 100 000

14. Write $[(-7) \times 3]^4$ as a product of powers.
- $4(-7) \times 3$
 - $(-4)^4$
 - $(-7)^4 + 3^4$
 - $(-7)^4 \times 3^4$
15. Which expressions have positive values?
- $[(-5)^2]^7$
 - $[-(-5)^2]^7$
 - $-(5^2)^7$
 - $-[-(-5)^2]^7$
- ii and iv
 - ii and iii
 - i and ii
 - i and iv

Short Answer

16. Write the product of ten thousand times one thousand as a power of 10.
17. Which number, $(4 \times 10^6) + (4 \times 10^5) + (4 \times 10^1)$ or 4 400 400, is greater?

18. Write the product of $7^6 \times 7^7$ as a single power.
19. Evaluate: $3^3 \times 3^4 - 3^5 \times 3$
20. Write $(8 \div 9)^5$ as a quotient of powers.

Problem

21. Evaluate: $2^4 \times 3^3 \times 5^2$
Show your steps.

22. Identify, then correct, any errors in the work shown.

$$\begin{aligned} & \frac{5^2 + 3 \times 4^2 - 3^2}{3^2 - (5 \times 4^0)} \\ &= \frac{25 + 3 \times 16 - 9}{9 - 1} \\ &= \frac{28 \times 7}{8} \\ &= \frac{196}{8} \\ &= 24.5 \end{aligned}$$