

Unit 4 Test: Exponents

Name: _____ NO. _____

Part 1: Fill in the missing blanks.

1. $a^m \times a^n$ is equal to _____.
2. a^{-n} is equal to _____.
3. $(a^m)^n$ is equal to _____.
4. In an expression 3^4 , 3 is called _____.
5. Write $5 \times 5 \times 5 \times 5$ in an exponential form. _____

Part 2: Multiple – Choice

Check the box of the correct answer in each items.

6. $(3x^3)^2$
☐ $3x^6$ ☐ $9x^5$ ☐ $6x^6$ ☐ $9x^6$
7. Which expression is NOT equal to 1?
☐ $(5)^0$ ☐ $(1)^{-2}$ ☐ $(-1)^3$ ☐ $(9^3) \div (9^3)$
8. $y \cdot y^3 \cdot y^2$
☐ y^5 ☐ y^0 ☐ y^6 ☐ y^7
9. $(2x^5y^3)(3x^3y)$
☐ $6x^8y^4$ ☐ $5x^8y^3$ ☐ $6x^{15}y^3$ ☐ $6x^8y^3$

10. $\frac{m^6 n^{-2} p^4}{m^2 n^4 p}$

☐ $m^4 n^6 p^{31}$

☐ $\frac{m^4 p^3}{n^6}$

☐ $\frac{m^4 n^6}{p^3}$

☐ 0

11. $\frac{25a^2 b^3}{5a}$

☐ $\frac{a}{b}$

☐ $\frac{5ab^3}{6}$

☐ $\frac{b^3}{5a}$

☐ $5ab^3$

12. $4^2 \cdot (cb^3)^0$

☐ -16

☐ 16

☐ $16cb^3$

☐ $-16cb^3$

13. $(6^2) \cdot (2^4) \cdot (6^{-2})$

☐ 12

☐ $\frac{1}{12}$

☐ 24

☐ 16

14. $3x^4 \cdot 4x^{-2} \cdot x^3$

☐ $12x^5$

☐ $12x^2$

☐ $\frac{7x^7}{x^2}$

☐ $\frac{12}{x^5}$

15. Which is the correct value of $2^2 + 3 \times 5 - 3$?

☐ 14

☐ 10

☐ 16

☐ 32

16. Evaluate : $(-2)^4 \times (-2)^2 \div (-2)^0$

☐ -32

☐ 256

☐ 64

☐ -64

17. What is equivalent of 10^7 ?

☐ 10 000 000 ☐ 100 000 000 ☐ 100 000 ☐ 1 000 000

18. What is $(-10^0)^3$?

☐ 0 ☐ 1 ☐ -1 ☐ 3

19. What is $-(4^7)^0$?

☐ -1 ☐ 1 ☐ 0 ☐ 4

20. Which of the following is equivalent to $\frac{1}{10} \times \frac{1}{10}$?

☐ 10^{-1} ☐ 10^2 ☐ 10^{-2} ☐ 1^2