



A2 Exponents Product and Quotient PW
16 Questions

NAME : _____

CLASS : _____

DATE : _____

1. $10 \times 10 \times 10 \times 10 \times 10 =$

A 10^5

B 10×5

2. $10^3 =$

A 10,000

B $10 + 10 + 10$

C 10×3

D $10 \times 10 \times 10$

3. If a number or variable does not have an exponent, we can assume the exponent is:

A 0

B 1

4. Which number is the BASE? $2^7 = 128$

A 2^7

B 128

C 7

D 2

5. The product rule says that when you are multiplying two exponents with the same base, you keep the base and _____ the exponents

A Subtract

B Add

C Multiply

D Divide

6. $x^3 \cdot x^4 =$

A x^{-1}

B x^{12}

C x^{34}

D x^7

7. $3m^2 \cdot m^6 \cdot 5m =$

A $35m^4$

B $8m^{12}$

C $15m^9$

D $15m^8$

8. The quotient rule says that when you are dividing two exponents with the same base, you keep the base and _____ the exponents.

 A Multiply B Divide C Add D Subtract

9. $\frac{x^9}{x^4} =$

A x^{13}

B x^{36}

C x^5

D x^{-5}

10. $\frac{9x^2b^6}{3xb^{10}} =$

A $3x^2b^4$

B $\frac{x}{3b^4}$

C $\frac{xb^4}{3}$

D $\frac{3x}{b^4}$

11. Simplify: $(4y)^{-3}$

A $-12y^{-3}$

B $\frac{64}{y^3}$

C $64y^{-3}$

D $\frac{1}{64y^3}$

12. Simplify: $2m^{-1}$

A $2m$

B $\frac{1}{2m}$

C $\frac{2}{m}$

D $\frac{m}{2}$

13. Simplify the following expression:

$$-9^0$$

A 0

B -9

C -1

D 1

14. Rewrite using positive exponents

$$\frac{1}{2^{-4}}$$

A $1/2^4$

B 4^2

C 2^4

D $1/4^2$

15.
$$\frac{18x^{-4}y^2z^0}{12x^{-2}y^{-3}z^4}$$

A $3x^2y^5z^4$

B $2x^2z^4$

C
$$\frac{3}{x^2y^5z^4}$$

D
$$\frac{3y^5}{2x^2z^4}$$

16.
$$(-2x^{-4}y^7z^{-8})^{-4}(xy)^0$$

A
$$\frac{16x^{16}z^{32}}{y^{28}}$$

B
$$\frac{-16x^{17}z^{32}}{y^{27}}$$

C
$$\frac{x^{16}z^{32}}{16y^{28}}$$

D $-8x^{-9}y^4z^{-12}$

Answer Key

1.a	2.d	3.b	4.d
5.b	6.d	7.c	8.d
9.c	10.d	11.d	12.c
13.c	14.c	15.d	16.c