



1. $(v^4)^5 =$

- (i)
- v^9
- (ii)
- v^4
- (iii)
- $5v^4$
- (iv)
- v
- (v)
- v^{20}

2. Simplify the expression $(-4)^{-7} \times (-2)^{-7}$

- (i)
- 8^{-8}
- (ii)
- 8^{-6}
- (iii)
- 10^{-7}
- (iv)
- 8^{-7}
- (v)
- 5^{-7}

3. $\left[(9^2)^5 \times (9^6)^3 \right] \div 9^{28}$

- (i) 1 (ii) 2 (iii) 9 (iv) 4 (v) 0

4. The value of $\left(\frac{3}{2}\right)^3 + \left(\frac{1}{2}\right)^2$

- (i)
- $\frac{31}{8}$
- (ii)
- $\frac{29}{8}$
- (iii)
- $\frac{29}{6}$
- (iv)
- $\left(\frac{29}{8}\right)^2$
- (v)
- $\frac{27}{8}$

5. $\left(\frac{7}{5}\right)^{-9}$

5. $\frac{-5}{-3} =$

$\left(\frac{7}{5}\right)^{-6}$

- (i)
- $\left(\frac{7}{5}\right)^{-5}$
- (ii) 1 (iii)
- $\left(\frac{7}{5}\right)^{-6}$
- (iv)
- $\left(\frac{7}{5}\right)^{-7}$
- (v)
- $\left(\frac{9}{5}\right)^{-6}$

6. Write the given number in usual form -4.64131×10^8

- (i) -4641310000 (ii) -464131000 (iii) -4641310 (iv) -46413100000 (v) -46413100

7. $-1^7 =$

- (i) 0 (ii) 1 (iii) undefined (iv)
- ∞
- (v) -1

8. $(-7)^8 =$

- (i) $\frac{(-7)^8}{1}$ (ii) $\frac{(-7)^8}{4^8}$ (iii) $\frac{(-7)^9}{1}$ (iv) $\frac{(-7)^8}{(-1)^8}$ (v) $\frac{(-7)^7}{1}$

9. Find the exponential notation of

$6 \times 6 \times 6 \times 6$

- (i) 6^5 (ii) 6^4 (iii) 9^4 (iv) 6^3 (v) 3^4

10. The base in the term 7^8 is

- (i) 7 (ii) 4 (iii) -8 (iv) -7 (v) 8

11. The value of $\left(\frac{4}{3}\right)^{-2} - \left(\frac{-2}{3}\right)^{-3}$

- (i) $\frac{63}{16}$ (ii) $\left(\frac{63}{16}\right)^2$ (iii) $\frac{65}{16}$ (iv) $\frac{9}{2}$ (v) $\frac{61}{16}$

12. Find the prime factorization of 5376

- (i) $2^8 \times 3^2 \times 7$ (ii) $2^8 \times 3 \times 7$ (iii) $2^8 \times 3 \times 6$ (iv) $2^6 \times 3 \times 7$ (v) $2^8 \times 5 \times 7$

13. Expand the following base power $\left(\frac{-1}{2}\right)^{-2}$

- (i) -8 (ii) -2 (iii) $\frac{4}{9}$ (iv) 4

14. $20a^2b^4c^3 =$

- (i) $18 \times a \times a \times b \times b \times b \times b \times c \times c \times c$ (ii) $20 \times a \times b \times b \times b \times b \times c \times c \times c$ (iii) $23 \times a \times a \times b \times b \times b \times b \times c \times c \times c$
(iv) $20 \times a \times a \times b \times b \times b \times c \times c \times c$ (v) $20 \times a \times a \times a \times b \times b \times b \times c \times c \times c$

Find the exponential notation of

15. $\frac{5}{3} \times \frac{5}{3} \times \frac{5}{3} \times \frac{5}{3}$

- (i) $\left(\frac{5}{3}\right)^3$ (ii) 1 (iii) $\left(\frac{5}{3}\right)^5$ (iv) $\left(\frac{5}{3}\right)^4$ (v) $\left(\frac{7}{3}\right)^4$

16. The exponent in the term $4^{(\frac{7}{2})}$ is

- (i) -4 (ii) 4 (iii) $(\frac{-7}{2})$ (iv) $\frac{7}{2}$ (v) $\frac{5}{2}$

17. $(\frac{r^{(9w+9)}}{r^{(-8w)}}) =$

- (i) $r^{(14w^2+41w+18)}$ (ii) $r^{(17w+9)}$ (iii) $r^{(17w+10)}$ (iv) $r^{(w+9)}$ (v) $r^{(3w-3)}$

18. Simplify the expression $(-5)^{-7} \times (-5)^{-9} \times (-5)^{-6}$

- (i) $(-5)^{-21}$ (ii) $(-7)^{-22}$ (iii) $(-3)^{-22}$ (iv) $(-5)^{-22}$ (v) $(-5)^{-23}$

19. The value of $2^2 \div 3^3$

- (i) $\frac{2}{27}$ (ii) $\frac{4}{25}$ (iii) $\frac{4}{27}$ (iv) $\frac{2}{9}$ (v) $(\frac{4}{27})^2$

20. $-5u^4 \cdot -3u^{(-6)} \cdot -9u^9 \cdot -2u^{(-3)} =$

- (i) $-10u^{72}$ (ii) $-30u^{72}$ (iii) $270u^4$ (iv) $7u^{(-30)}$ (v) $-10u^7$

21. $\frac{(9^{-2})^{-4} \times (11^2)^2 \times (12^2)^2}{(9^2)^4 \times (11^{-2})^2 \times (12^{-2})^{-4}} =$

- (i) $1 \times 11^8 \times 12^{-4}$ (ii) $1 \times 11^9 \times 12^{-4}$ (iii) $1 \times 11^8 \times 12^{-4}$ (iv) $1 \times 11^8 \times 12^{-3}$

22. $(-9 \times -7 \times 7)^{-2} =$

- (i) $(-9)^{-2} \times (-7)^{-1} \times 7^{-1}$ (ii) $(-9)^{-2} \times (-9)^{-2} \times 4^{-2}$ (iii) $(-9)^{-2} \times (-7)^{-2} \times 7^{-2}$ (iv) $(-9)^{-2} \times (-7)^{-3} \times 7^{-3}$
(v) $(-9)^{-2} \times (-5)^{-2} \times 10^{-2}$

23. Simplify the expression $6^{-9} \times 6^{-5}$

- (i) 9^{-14} (ii) 6^{-15} (iii) 6^{-13} (iv) 3^{-14} (v) 6^{-14}

24. Simplify the expression $8^7 \times 8^5$

- (i) 8^{13} (ii) 8^{12} (iii) 5^{12} (iv) 11^{12} (v) 8^{11}

25. $[5^2]^4 =$

- (i) 5^9 (ii) 5^8 (iii) 2^8 (iv) 5^7 (v) 7^8

Assignment Key

1) (v)	2) (iv)	3) (i)	4) (ii)	5) (iii)	6) (ii)
7) (v)	8) (i)	9) (ii)	10) (i)	11) (i)	12) (ii)
13) (iv)	14) (iv)	15) (iv)	16) (iv)	17) (ii)	18) (iv)
19) (iii)	20) (iii)	21) (i)	22) (iii)	23) (v)	24) (ii)
25) (ii)					

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