EduSahara™ Assignment

Name : Base Power Concepts

Chapter : Exponents and Powers

Grade : CBSE Grade VIII

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1. $(7 \times -4)^{-8} =$

(i) $7^{-8} \times (-4)^{-7}$ (ii) $7^{-8} \times (-4)^{-9}$ (iii) $7^{-8} \times (-4)^{-8}$ (iv) $7^{-8} \times (-7)^{-8}$ (v) $7^{-8} \times (-2)^{-8}$

2. $(-6 \times -6 \times -9)^{-5} =$

(i) $(-6)^{-5} \times (-3)^{-5} \times (-6)^{-5}$ (ii) $(-6)^{-5} \times (-9)^{-5} \times (-11)^{-5}$ (iii) $(-6)^{-5} \times (-6)^{-6} \times (-9)^{-6}$ (iv) $(-6)^{-5} \times (-6)^{-5} \times (-9)^{-5}$

(v) $(-6)^{-5} \times (-6)^{-4} \times (-9)^{-4}$

3. $\left(\frac{6}{5} \times \frac{8}{3}\right)^{6} =$

(i) $\left(\frac{6}{5}\right)^{6} \times \left(\frac{8}{3}\right)^{7}$ (ii) $\left(\frac{6}{5}\right)^{6} \times \left(\frac{10}{3}\right)^{6}$ (iii) $\left(\frac{6}{5}\right)^{6} \times \left(\frac{8}{3}\right)^{6}$ (iv) $\left(\frac{6}{5}\right)^{6} \times 2^{6}$ (v) $\left(\frac{6}{5}\right)^{6} \times \left(\frac{8}{3}\right)^{5}$

4. $\left(\frac{-2}{1} \times \left(\frac{-2}{9}\right) \times \frac{8}{7}\right)^{4} =$

(i) $(-2)^{4} \times \left(\frac{-2}{9}\right)^{6} \times \left(\frac{10}{7}\right)^{4}$ (ii) $(-2)^{4} \times \left(\frac{-2}{9}\right)^{3} \times \left(\frac{8}{7}\right)^{3}$ (iii) $(-2)^{4} \times \left(\frac{-2}{9}\right)^{5} \times \left(\frac{8}{7}\right)^{5}$ (iv) $(-2)^{4} \times \left(\frac{-4}{9}\right)^{4} \times \left(\frac{6}{7}\right)^{4}$

(v) $(-2)^{4} \times \left(\frac{-2}{9}\right)^{4} \times \left(\frac{8}{7}\right)^{4}$

5. $\left(\frac{6}{5} \times \left(\frac{-7}{2}\right)\right)^{-2/9} =$

(i) $\left(\frac{6}{5}\right)^{(-2/9)} \times \left(\frac{-5}{2}\right)^{(-2/9)}$ (ii) $\left(\frac{6}{5}\right)^{(-2/9)} \times \left(\frac{-9}{2}\right)^{(-2/9)}$ (iii) $\left(\frac{6}{5}\right)^{(-2/9)} \times \left(\frac{-7}{2}\right)^{(-2/9)}$ (iv) $\left(\frac{6}{5}\right)^{(-2/9)} \times \left(\frac{-7}{2}\right)^{(-2/7)}$

(v) $\left(\frac{6}{5}\right)^{(-2/9)} \times \left(\frac{-7}{2}\right)^{(-2/11)}$

6. $\left(\frac{-5}{2}\right)^{5}$ =

(i) $\frac{(-5)^5}{2^5}$ (ii) $\frac{(-5)^4}{2^5}$ (iii) $\frac{(-5)^5}{2^2}$ (iv) $\frac{(-5)^5}{5^5}$ (v) $\frac{(-5)^6}{2^5}$

7. $(-4)^{-7}$ =

(i) $\frac{(-4)^{-6}}{1}$ (ii) $\frac{(-4)^{-7}}{1}$ (iii) $\frac{(-4)^{-7}}{3^{-7}}$ (iv) $\frac{(-4)^{-7}}{(-2)^{-7}}$ (v) $\frac{(-4)^{-8}}{1}$

8. 3^8 =

(i) $\left(\frac{1}{3}\right)^{-7}$ (ii) 1 (iii) $\left(\frac{1}{3}\right)^{-9}$ (iv) $\left(\frac{-1}{3}\right)^{-8}$ (v) $\left(\frac{1}{3}\right)^{-8}$

9. $\left(\frac{-4}{9}\right)^{-2}$ =

(i) $\left(\frac{-11}{4}\right)^{2}$ (ii) $\left(\frac{-7}{4}\right)^{2}$ (iii) $\left(\frac{-9}{4}\right)^{3}$ (iv) $\left(\frac{-9}{4}\right)^{2}$ (v) $(-2\frac{1}{4})$

10. $\frac{(-4)^{-3}}{(-4)^8}$ =

(i) $(-7)^{-11}$ (ii) $(-1)^{-11}$ (iii) $(-4)^{-11}$ (iv) $(-4)^{-12}$ (v) $(-4)^{-10}$

11. $\frac{\left(\frac{-8}{7}\right)^{-5}}{\left(\frac{-8}{7}\right)^{3}}$ =

(i) $\left(\frac{-10}{7}\right)^{-8}$ (ii) $\left(\frac{-8}{7}\right)^{-7}$ (iii) $\left(\frac{-8}{7}\right)^{-9}$ (iv) $\left(\frac{-8}{7}\right)^{-8}$ (v) $\left(\frac{-6}{7}\right)^{-8}$

12. $[(-6)^4]^5$ =

(i) $(-6)^{21}$ (ii) $(-6)^{19}$ (iii) $(-6)^{20}$ (iv) $(-8)^{20}$ (v) $(-4)^{20}$

13. $[6^{-2}]^{-4/3} =$

(i) $\left(\frac{8}{3}\right)_{6}$ (ii) 6^{4} (iii) $\left(\frac{8}{3}\right)_{8}$ (iv) $\left(\frac{8}{3}\right)_{4}$ (v) $\left(\frac{12}{5}\right)_{6}$

14. $\left[(-6)^{\left(\frac{-2}{3}\right)}\right]^{-3} =$

(i) $(-6)^{3}$ (ii) $(-6)^{2}$ (iii) -6 (iv) $(-8)^{2}$ (v) $(-3)^{2}$

15. $\left[\left(\frac{5}{4}\right)^{-3}\right]^{-2} =$

(i) $\left(\frac{5}{4}\right)^{5}$ (ii) $\left(\frac{5}{4}\right)^{6}$ (iii) $\left(\frac{3}{4}\right)^{6}$ (iv) $\left(\frac{5}{4}\right)^{7}$ (v) $\left(\frac{7}{4}\right)^{6}$

16. $\left[\left(\frac{8}{5}\right)^{3}\right]^{-5/4} =$

(i) $\left(\frac{6}{5}\right)^{(-15/4)}$ (ii) $\left(\frac{8}{5}\right)^{(-7/2)}$ (iii) $\left(\frac{8}{5}\right)^{(-15/4)}$ (iv) $\left(\frac{8}{5}\right)^{(-9/2)}$ (v) $\left(\frac{-15}{4}\right)_{2}$

17. $\left[\left(\frac{-8}{3}\right)^{-3}\right]^{-3} =$

(i) $\left(\frac{-8}{3}\right)^{8}$ (ii) $\left(\frac{-8}{3}\right)^{10}$ (iii) $\left(\frac{-10}{3}\right)^{9}$ (iv) $\left(\frac{-8}{3}\right)^{9}$ (v) $(-2)^{9}$

18. Simplify the expression $5^{2} \times 5^{2}$

(i) 3^{4} (ii) 7^{4} (iii) 5^{3} (iv) 5^{4} (v) 5^{5}

19. $(-4)^{-3} =$

(i) $\left(\frac{-1}{4}\right)^{3}$ (ii) $\left(\frac{-1}{4}\right)^{4}$ (iii) $\left(\frac{-3}{4}\right)^{3}$ (iv) $\left(\frac{1}{4}\right)^{3}$ (v) $\left(\frac{-1}{4}\right)^{2}$

20. Simplify the expression $5^{-5} \times 5^{-5} \times 5^{-5}$

(i) 8^{-15} (ii) 3^{-15} (iii) 5^{-14} (iv) 5^{-16} (v) 5^{-15}

21. Simplify the expression $(-3)^{2} \times (-3)^{2} \times (-3)^{2}$

(i) $(-3)^{6}$ (ii) $(-3)^{5}$ (iii) $(-3)^{9}$ (iv) $(-3)^{7}$ (v) $(-5)^{6}$

22. Simplify the expression $(-9)^{-9} \times (-9)^{-9} \times (-9)^{-9}$

(i) $(-9)^{-26}$ (ii) $(-9)^{-27}$ (iii) $(-9)^{-28}$ (iv) $(-6)^{-27}$ (v) $(-11)^{-27}$

23. Simplify the expression $5^{-5} \times 5^{-2} \times 5^{-7}$

(i) 5^{-15} (ii) 7^{-14} (iii) 5^{-14} (iv) 5^{-13} (v) 3^{-14}

24. Simplify the expression $3^{8} \times 2^{8} \times 3^{8}$

(i) 18^{9} (ii) 18^{7} (iii) 21^{8} (iv) 18^{8} (v) 15^{8}

25. Simplify the expression $5^{-5} \times 5^{-5}$

(i) 25^{-5} (ii) 22^{-5} (iii) 28^{-5} (iv) 25^{-6} (v) 25^{-4}

26. Simplify the expression $(-5)^{6} \times (-3)^{6} \times (-7)^{6}$

(i) $(-105)^{6}$ (ii) $(-107)^{6}$ (iii) $(-105)^{7}$ (iv) $(-102)^{6}$ (v) $(-105)^{5}$

Assignment Key

1) (iii)	2) (iv)	3) (iii)	4) (v)	5) (iii)	6) (i)
7) (ii)	8) (v)	9) (iv)	10) (iii)	11) (iv)	12) (iii)
13) (i)	14) (ii)	15) (ii)	16) (iii)	17) (iv)	18) (iv)
19) (i)	20) (v)	21) (i)	22) (ii)	23) (iii)	24) (iv)
25) (i)	26) (i)				

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