EduSahara™ Assignment

Name : Laws of Exponents

Chapter : Exponents and Powers

Grade : CBSE Grade VII

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1. $(-5 \times 7)^{-2} =$

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

2. $(-4 \times -7 \times 6)^{5} =$

(i) $(-4)^{5} \times (-4)^{5} \times 8^{5}$ (ii) $(-4)^{5} \times (-7)^{4} \times 6^{4}$ (iii) $(-4)^{5} \times (-7)^{6} \times 6^{6}$ (iv) $(-4)^{5} \times (-7)^{5} \times 6^{5}$ (v) $(-4)^{5} \times (-10)^{5} \times 4^{5}$

3. $((\frac{-5}{8}) \times \frac{9}{8})^{2} =$

(i) $(\frac{-5}{8})^{2} \times (\frac{11}{8})^{2}$ (ii) $(\frac{-5}{8})^{2} \times \frac{9}{8}$ (iii) $(\frac{-5}{8})^{2} \times (\frac{9}{8})^{3}$ (iv) $(\frac{-5}{8})^{2} \times (\frac{7}{8})^{2}$ (v) $(\frac{-5}{8})^{2} \times (\frac{9}{8})^{2}$

4. $((\frac{5}{3}) \times (\frac{-9}{2}) \times (\frac{-3}{2}))^{-7} =$

(i) $(\frac{5}{3})^{-7} \times (\frac{-9}{2})^{-7} \times (\frac{-3}{2})^{-7}$ (ii) $(\frac{5}{3})^{-7} \times (\frac{-7}{2})^{-7} \times (\frac{-1}{2})^{-7}$ (iii) $(\frac{5}{3})^{-7} \times (\frac{-9}{2})^{-8} \times (\frac{-3}{2})^{-8}$

(iv) $(\frac{5}{3})^{-7} \times (\frac{-9}{2})^{-6} \times (\frac{-3}{2})^{-6}$ (v) $(\frac{5}{3})^{-7} \times (\frac{-11}{2})^{-7} \times (\frac{-5}{2})^{-7}$

5. $(\frac{8}{5})^{3} =$

(i) $\frac{8^{2}}{5^{3}}$ (ii) $\frac{8^{3}}{5^{3}}$ (iii) $\frac{8^{4}}{5^{3}}$ (iv) $\frac{8^{3}}{8^{3}}$ (v) $\frac{8^{3}}{2^{3}}$

6. $(\frac{7}{2})^{-4} =$

(i) $\frac{7^{-5}}{2^{-4}}$ (ii) $\frac{7^{-4}}{5^{-4}}$ (iii) $\frac{7^{-4}}{2^{-4}}$ (iv) $\frac{7^{-4}}{2^{-6}}$ (v) $\frac{7^{-3}}{2^{-4}}$

7. 5^{2} =

(i) $\left(\frac{1}{5}\right)^{-2}$ (ii) $\left(\frac{1}{5}\right)^{-1}$ (iii) $\left(\frac{3}{5}\right)^{-2}$ (iv) $\left(\frac{1}{5}\right)^{-3}$ (v) $\left(\frac{-1}{5}\right)^{-2}$

8. 6^{-5} =

(i) $\left(\frac{1}{6}\right)^{5}$ (ii) $\left(\frac{-1}{6}\right)^{5}$ (iii) $\left(\frac{1}{2}\right)^{5}$ (iv) $\left(\frac{1}{6}\right)^{6}$ (v) $\left(\frac{1}{6}\right)^{4}$

9. $(-5)^{8}$ =

(i) $\left(\frac{-1}{5}\right)^{-9}$ (ii) $\left(\frac{1}{5}\right)^{-8}$ (iii) $\left(\frac{-1}{5}\right)^{-8}$ (iv) $\left(\frac{-1}{5}\right)^{-7}$ (v) $\left(\frac{-3}{5}\right)^{-8}$

10. $\frac{6^{8}}{6^{8}}$ =

(i) 6^{2} (ii) 6^{-2} (iii) 1 (iv) 6^{-1} (v) 6

$\left(\frac{8}{3}\right)^{-9}$

11. $\frac{\left(\frac{8}{3}\right)^{-9}}{\left(\frac{8}{3}\right)^{-9}}$ =

(i) $\left(\frac{8}{3}\right)^{-1}$ (ii) $\left(\frac{8}{3}\right)^{-2}$ (iii) $\left(\frac{8}{3}\right)^{2}$ (iv) 1 (v) $\frac{8}{3}$

12. $[5^{4}]^{-3}$ =

(i) 5^{-11} (ii) 5^{-12} (iii) 8^{-12} (iv) 3^{-12} (v) 5^{-13}

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

(i) 2^{15} (ii) $\left(\frac{4}{3}\right)^{14}$ (iii) $\left(\frac{4}{3}\right)^{15}$ (iv) $\left(\frac{2}{3}\right)^{15}$ (v) $\left(\frac{4}{3}\right)^{16}$

14. Simplify the expression $5^5 \times 5^5 \times 5^5$

(i) 2^{15} (ii) 8^{15} (iii) 5^{15} (iv) 5^{16} (v) 5^{14}

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

(i) 2^{-15} (ii) 4^{-15} (iii) 2^{-17} (iv) 2^{-16} (v) 2^{-14}

16. Simplify the expression $(-9)^8 \times (-9)^8$

(i) $(-12)^{16}$ (ii) $(-9)^{16}$ (iii) $(-9)^{15}$ (iv) $(-9)^{17}$ (v) $(-7)^{16}$

17. Simplify the expression $(-3)^{-6} \times (-3)^{-6}$

(i) $(-3)^{-13}$ (ii) $(-3)^{-12}$ (iii) $(-6)^{-12}$ (iv) $(-1)^{-12}$ (v) $(-3)^{-11}$

18. Simplify the expression $\left(\frac{9}{2}\right)^9 \times \left(\frac{9}{2}\right)^9$

(i) $\left(\frac{11}{2}\right)^{18}$ (ii) $\left(\frac{9}{2}\right)^{19}$ (iii) $\left(\frac{7}{2}\right)^{18}$ (iv) $\left(\frac{9}{2}\right)^{17}$ (v) $\left(\frac{9}{2}\right)^{18}$

19. Simplify the expression $\left(\frac{8}{5}\right)^{-3} \times \left(\frac{8}{5}\right)^{-3}$

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

20. Simplify the expression $4^3 \times 4^2$

(i) 4^6 (ii) 4^4 (iii) 7^5 (iv) 4^5 (v) 2^5

21. Simplify the expression $9^{-6} \times 9^{-4}$

(i) 9^{-9} (ii) 9^{-11} (iii) 6^{-10} (iv) 9^{-10} (v) 11^{-10}

22. Simplify the expression $(-8)^7 \times (-8)^6$

(i) $(-8)^{12}$ (ii) $(-8)^{13}$ (iii) $(-8)^{14}$ (iv) $(-5)^{13}$ (v) $(-10)^{13}$

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

(i) $(-1)^{-12}$ (ii) $(-3)^{-11}$ (iii) $(-6)^{-12}$ (iv) $(-3)^{-13}$ (v) $(-3)^{-12}$

24. Simplify the expression $7^7 \times 7^2$

(i) 4^9 (ii) 7^8 (iii) 9^9 (iv) 7^{10} (v) 7^9

25. Simplify the expression $5^6 \times 6^6 \times 2^6$

(i) 60^6 (ii) 60^7 (iii) 62^6 (iv) 60^5 (v) 58^6

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

(i) 20^{-3} (ii) 20^{-1} (iii) 20^{-2} (iv) 23^{-2} (v) 17^{-2}

27. $2n^6.3n^7 =$

(i) $13n^6$ (ii) $6n^{42}$ (iii) $6n^{13}$ (iv) $5n^{42}$ (v) $5n^{13}$

28. $8f^6.3f^4.6f^3 =$

(i) $144f^{13}$ (ii) $17f^{13}$ (iii) $17f^{72}$ (iv) $144f^{72}$ (v) $13f^{144}$

29. $8m^2.9m^6.7m^8.5m^5 =$

(i) $22m^{60}$ (ii) $22m^{16}$ (iii) $16m^{360}$ (iv) $2520m^{21}$ (v) $360m^{60}$

30. $-6p^7.-7p^8 =$

(i) $-13p^{15}$ (ii) $15p^{42}$ (iii) $-13p^{56}$ (iv) $42p^{56}$ (v) $42p^{15}$

Assignment Key

1) (v)	2) (iv)	3) (v)	4) (i)	5) (ii)	6) (iii)
7) (i)	8) (i)	9) (iii)	10) (iii)	11) (iv)	12) (ii)
13) (iii)	14) (iii)	15) (i)	16) (ii)	17) (ii)	18) (v)
19) (v)	20) (iv)	21) (iv)	22) (ii)	23) (v)	24) (v)
25) (i)	26) (iii)	27) (iii)	28) (i)	29) (iv)	30) (v)

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