EduSahara™ Assignment

Name : Evaluation of Base Power Expressions

Chapter : Exponents

Grade : ICSE Grade VII

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1. Expand the following base power 4^{3}

   (i) 16 (ii) 256 (iii) 64 (iv) 8 (v) 343

2. Expand the following base power 2^{-2}

   (i) $\frac{1}{32}$ (ii) $\frac{1}{8}$ (iii) $\frac{1}{16}$ (iv) $\frac{1}{2}$ (v) $\frac{1}{4}$

3. Expand the following base power $(-4)^{3}$

   (i) -8 (ii) 16 (iii) 256 (iv) -64 (v) -216

4. Expand the following base power $(-4)^{-4}$

   (i) $(\frac{-1}{64})$ (ii) $\frac{1}{256}$ (iii) $(\frac{-1}{1024})$ (iv) $\frac{1}{16}$ (v) $\frac{1}{2401}$

5. Expand the following base power $\left(\frac{2}{5}\right)^{2}$

   (i) $\frac{5}{2}$ (ii) $\frac{4}{25}$ (iii) $\frac{16}{25}$ (iv) $\frac{8}{125}$ (v) $\frac{2}{5}$

6. Expand the following base power $\left(\frac{4}{5}\right)^{-3}$

   (i) $\frac{625}{256}$ (ii) $\frac{125}{64}$ (iii) $\frac{25}{16}$ (iv) $\frac{125}{216}$ (v) $\frac{125}{8}$

7. Expand the following base power $\left(\frac{-2}{3}\right)^{2}$

   (i) $\frac{16}{9}$ (ii) $(\frac{-8}{27})$ (iii) $(\frac{-2}{3})$ (iv) $\frac{4}{9}$ (v) $\frac{16}{81}$

8. Expand the following base power $\left(\frac{-4}{3}\right)^{-5}$

   (i) $\frac{729}{4096}$ (ii) $(\frac{-243}{1024})$ (iii) $(\frac{-243}{32})$ (iv) $(\frac{-1}{32})$ (v) $\frac{81}{256}$

9. The value of $(-3)^2 \times 2^2$

(i) 33 (ii) 36^2 (iii) 38 (iv) 35 (v) 36

10. The value of $(-4)^{-2} \times 3^{-3}$

(i) 432^{-2} (ii) 432^{-1} (iii) 435^{-1} (iv) 430^{-1} (v) 433^{-1}

11. The value of $\left(\frac{-2}{3}\right)^2 \times \left(\frac{1}{2}\right)^2$

(i) 7^{-1} (ii) 10^{-1} (iii) 12^{-1} (iv) 9^{-1} (v) 9^{-2}

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

(i) 7^{-1} (ii) 3^{-1} (iii) 9^{-1} (iv) 6^{-2} (v) 6^{-1}

13. The value of $5^3 \div (-3)^2$

(i) $\left(\frac{125}{9}\right)^2$ (ii) $\frac{125}{9}$ (iii) $\frac{127}{9}$ (iv) $\frac{125}{7}$ (v) $\frac{41}{3}$

14. The value of $4^{-3} \div (-5)^{-3}$

(i) $\left(\frac{-127}{64}\right)$ (ii) $\left(\frac{-125}{64}\right)$ (iii) $\left(\frac{-125}{64}\right)^2$ (iv) $\left(\frac{-123}{64}\right)$ (v) $\left(\frac{-125}{62}\right)$

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

(i) 15 (ii) 16^2 (iii) 16 (iv) 18 (v) 14

16. The value of $\left(\frac{5}{3}\right)^{-2} \div \left(\frac{3}{2}\right)^{-2}$

(i) $\frac{81}{98}$ (ii) $\frac{81}{100}$ (iii) $\left(\frac{81}{100}\right)^2$ (iv) $\frac{79}{100}$ (v) $\frac{83}{100}$

17. The multiplicative inverse of 6^{-6} is

(i) 6^{6} (ii) 0 (iii) 1 (iv) $\left(\frac{1}{6}\right)^{6}$ (v) $(-6)^{-6}$

18. The multiplicative inverse of $\left(\frac{1}{5}\right)^{6}$ is

(i) $\left(\frac{1}{5}\right)^{-6}$ (ii) $\left(\frac{-1}{5}\right)^{6}$ (iii) 5^{-6} (iv) 1 (v) 0

19. $\left(\frac{1}{2}\right)^{-3} + \left(\frac{1}{5}\right)^{-3} =$

(i) 134 (ii) 135 (iii) 130 (iv) 132 (v) 133

20. $\left(g^{2} + h^{2}\right)^{0} =$

(i) 3 (ii) 1 (iii) $g^{2} + h^{2}$ (iv) 0 (v) (-2)

21. $-1^{8} =$

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

22. $-1^{3} =$

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

23. $2^{0} =$

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

24. $0^{0} =$

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

25. $-10^{0} =$

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

26. $0^{2} =$

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

27. Find the reciprocal of 2^{5}

(i) $\left(\frac{1}{2}\right)^{5}$ (ii) $\left(\frac{-1}{2}\right)^{5}$ (iii) $\left(\frac{3}{2}\right)^{5}$ (iv) $\left(\frac{1}{2}\right)^{4}$ (v) $\left(\frac{1}{2}\right)^{6}$

28. Find the reciprocal of $\left(\frac{-5}{3}\right)^{8}$

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

29. Simplify $7^{-1} + 9^{0} + 8^{1} + 2^{-1}$

(i) $\frac{39}{4}$ (ii) $\frac{153}{16}$ (iii) $\frac{135}{14}$ (iv) $\frac{19}{2}$ (v) $\frac{137}{14}$

Assignment Key

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

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