EduSahara™ Assignment

Name : Evaluation of Base Power Expressions

Chapter : Exponents and Powers

Grade : CBSE Grade VII

1. Expand the following base power 5^{2}

   (i) 125 (ii) 9 (iii) 64 (iv) 5 (v) 25

2. Expand the following base power 4^{-2}

   (i) $\frac{1}{16}$ (ii) $\frac{1}{49}$ (iii) $\frac{1}{64}$ (iv) $\frac{1}{4}$

3. Expand the following base power $(-3)^{5}$

   (i) 81 (ii) -1 (iii) 729 (iv) -7776 (v) -243

4. Expand the following base power $(-4)^{-5}$

   (i) $\frac{1}{4096}$ (ii) -1 (iii) $(\frac{-1}{16807})$ (iv) $(\frac{-1}{1024})$ (v) $\frac{1}{256}$

5. Expand the following base power $\left(\frac{1}{5}\right)^{5}$

   (i) $\frac{1}{15625}$ (ii) $\frac{1}{3125}$ (iii) $\frac{1}{625}$ (iv) $\frac{243}{3125}$ (v) $(\frac{-1}{3125})$

6. Expand the following base power $\left(\frac{3}{2}\right)^{-5}$

   (i) $\frac{64}{729}$ (ii) $\frac{32}{243}$ (iii) 32 (iv) $\frac{16}{81}$ (v) $\frac{32}{3125}$

7. Expand the following base power $\left(\frac{-1}{2}\right)^{3}$

   (i) $\frac{1}{8}$ (ii) $(\frac{-27}{8})$ (iii) $\frac{1}{4}$ (iv) $\frac{1}{16}$ (v) $(\frac{-1}{8})$

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

   (i) $\frac{256}{625}$ (ii) $\frac{4096}{15625}$ (iii) $(\frac{-1024}{243})$ (iv) $(\frac{-1024}{3125})$ (v) $(\frac{-1024}{16807})$

9. The value of $4^2 + 2^3$

(i) 27 (ii) 22 (iii) 24 (iv) 23 (v) 24^2

10. The value of $(-3)^{-2} + (-2)^{-2}$

(i) $\left(\frac{13}{36}\right)^2$ (ii) $\frac{5}{12}$ (iii) $\frac{13}{36}$ (iv) $\frac{11}{36}$ (v) $\frac{13}{34}$

11. The value of $\left(\frac{1}{2}\right)^2 + \left(\frac{-5}{2}\right)^2$

(i) 13 (ii) $\left(\frac{13}{2}\right)^2$ (iii) $\frac{13}{2}$ (iv) $\frac{11}{2}$ (v) $\frac{15}{2}$

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

(i) $\frac{261}{100}$ (ii) $\frac{263}{100}$ (iii) $\left(\frac{261}{100}\right)^2$ (iv) $\frac{261}{98}$ (v) $\frac{259}{100}$

13. The value of $5^3 - (-4)^3$

(i) 188 (ii) 186 (iii) 192 (iv) 189^2 (v) 189

14. The value of $(-3)^{-2} - (-5)^{-2}$

(i) $\frac{2}{25}$ (ii) $\frac{14}{225}$ (iii) $\frac{16}{225}$ (iv) $\left(\frac{16}{225}\right)^2$ (v) $\frac{16}{223}$

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

(i) $\frac{7}{27}$ (ii) $\frac{1}{5}$ (iii) $\left(\frac{5}{27}\right)^2$ (iv) $\frac{1}{9}$ (v) $\frac{5}{27}$

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

(i) $\left(\frac{485}{64}\right)^{2}$ (ii) $\frac{483}{64}$ (iii) $\frac{487}{64}$ (iv) $\frac{485}{62}$ (v) $\frac{485}{64}$

17. The value of $(-3)^{2} \times (-5)^{3}$

(i) -1125 (ii) -1126 (iii) -1123 (iv) $(-1125)^{2}$ (v) -1127

18. The value of $(-5)^{-2} \times (-3)^{-3}$

(i) $\frac{1}{675}$ (ii) $\left(\frac{-1}{675}\right)^{2}$ (iii) $\left(\frac{-1}{675}\right)$ (iv) $\left(\frac{-1}{673}\right)$ (v) $\left(\frac{-1}{225}\right)$

19. Find the value of $4^{\left(\frac{5}{2}\right)}$

(i) 34 (ii) 33 (iii) 31 (iv) 32 (v) 30

20. Find the value of 5^{-3}

(i) $\frac{1}{125}$ (ii) $\frac{1}{127}$ (iii) $\frac{1}{123}$ (iv) $\frac{3}{125}$ (v) $\left(\frac{-1}{125}\right)$

21. $\left(d^{7} + e^{7}\right)^{0} =$

(i) $d^{7} + e^{7}$ (ii) 4 (iii) 0 (iv) (-2) (v) 1

22. $-1^{6} =$

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

23. $-1^{5} =$

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

24. $7^{0} =$

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

25. $0^{0} =$

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

26. $-10^{0} =$

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

27. $0^2 =$

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

28. Simplify $7^{-1} + 6^0 + 4^1 + 8^{-1}$

(i) $\frac{305}{58}$ (ii) $\frac{293}{56}$ (iii) $\frac{297}{56}$ (iv) $\frac{295}{56}$ (v) $\frac{95}{18}$

Assignment Key

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