

EduSahara™ Learning Center Assignment**Grade : Class VII, ICSE****Chapter : Exponents****Name : Evaluation of Base Power Expressions****Licensed To : Teachers and Students for non-commercial use**

1. Expand the following base power 2^3

(i) 16 (ii) 125 (iii) 4 (iv) -1 (v) 8

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

(i) $\frac{1}{25}$ (ii) $\frac{1}{125}$ (iii) $\frac{1}{5}$ (iv) $\frac{1}{9}$ (v) $\frac{1}{64}$

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

(i) -64 (ii) 16 (iii) 2401 (iv) 256 (v) -1024

4. Expand the following base power $(-5)^{-2}$

(i) $(\frac{-1}{5})$ (ii) $\frac{1}{64}$ (iii) $\frac{1}{25}$ (iv) $(\frac{-1}{125})$ (v) $\frac{1}{4}$

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

(i) $\frac{27}{8}$ (ii) $\frac{9}{4}$ (iii) $\frac{125}{8}$ (iv) $\frac{1}{8}$ (v) $\frac{81}{16}$

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

(i) $\frac{4}{9}$ (ii) $\frac{8}{125}$ (iii) $\frac{8}{27}$ (iv) $\frac{16}{81}$ (v) 8

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

(i) $(\frac{-243}{32})$ (ii) $(\frac{-1}{32})$ (iii) $\frac{81}{16}$ (iv) $(\frac{-3125}{32})$ (v) $\frac{729}{64}$

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

(i) $(\frac{-64}{125})$ (ii) $\frac{16}{25}$ (iii) $\frac{256}{625}$ (iv) $(\frac{-64}{27})$ (v) $(\frac{-64}{343})$

9. The value of $4^2 \times (-2)^2$

(i) 64 (ii) 61 (iii) 64^2 (iv) 63 (v) 66

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

(i) $(\frac{-3}{1000})$ (ii) $(\frac{-1}{1000})^2$ (iii) $\frac{1}{1000}$ (iv) $(\frac{-1}{998})$ (v) $(\frac{-1}{1000})$

11. The value of $(\frac{1}{2})^2 \times (\frac{4}{3})^3$

(i) $\frac{16}{25}$ (ii) $(\frac{16}{27})^2$ (iii) $\frac{16}{27}$ (iv) $\frac{14}{27}$ (v) $\frac{2}{3}$

12. The value of $(\frac{5}{2})^{-3} \times (\frac{-4}{3})^{-2}$

(i) $\frac{11}{250}$ (ii) $(\frac{9}{250})^2$ (iii) $\frac{9}{248}$ (iv) $\frac{9}{250}$ (v) $\frac{7}{250}$

13. The value of $(-4)^3 \div 3^2$

(i) $\left(\frac{-64}{9}\right)^2$ (ii) $\left(\frac{-22}{3}\right)$ (iii) $\left(\frac{-64}{9}\right)$ (iv) $\left(\frac{-64}{7}\right)$ (v) $\left(\frac{-62}{9}\right)$

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

(i) $\frac{23}{9}$ (ii) $\left(\frac{25}{9}\right)^2$ (iii) $\frac{25}{7}$ (iv) 3 (v) $\frac{25}{9}$

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

(i) $\frac{9}{25}$ (ii) $\left(\frac{9}{25}\right)^2$ (iii) $\frac{11}{25}$ (iv) $\frac{7}{25}$ (v) $\frac{9}{23}$

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

(i) 3 (ii) 7 (iii) 4^2 (iv) 4 (v) 2

17. The multiplicative inverse of 7^{-5} is

(i) 7^5 (ii) 0 (iii) 1 (iv) $(-7)^{-5}$ (v) $\left(\frac{1}{7}\right)^5$

18. The multiplicative inverse of $\left(\frac{1}{8}\right)^4$ is

(i) 8^{-4} (ii) $\left(\frac{1}{8}\right)^{-4}$ (iii) 1 (iv) 0 (v) $\left(\frac{-1}{8}\right)^4$

19. $\left(\frac{1}{2}\right)^{-2} + \left(\frac{1}{2}\right)^{-2} + \left(\frac{1}{5}\right)^{-4} + \left(\frac{1}{2}\right)^{-3} =$

- (i) 639 (ii) 642 (iii) 643 (iv) 640 (v) 641
-

20. $\left(d^9 + e^9\right)^0 =$

- (i) $d^9 + e^9$ (ii) 1 (iii) (-2) (iv) 0 (v) 4
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21. $-1^{10} =$

- (i) 1 (ii) undefined (iii) 0 (iv) -1 (v) ∞
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22. $-1^3 =$

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

23. $7^0 =$

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

24. $0^0 =$

- (i) ∞ (ii) 0 (iii) -1 (iv) 1 (v) undefined
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25. $-8^0 =$

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

26. $0^4 =$

- (i) 1 (ii) -1 (iii) undefined (iv) ∞ (v) 0
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27. Find the reciprocal of 5^6

(i) $\left(\frac{3}{5}\right)^6$ (ii) $\left(\frac{1}{5}\right)^7$ (iii) $\left(\frac{-1}{5}\right)^6$ (iv) $\left(\frac{1}{5}\right)^5$ (v) $\left(\frac{1}{5}\right)^6$

28. Find the reciprocal of $\left(\frac{-6}{2}\right)^3$

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

29. Simplify $7^{-1} + 2^0 + 6^1 + 9^{-1}$

(i) $\frac{51}{7}$ (ii) $\frac{65}{9}$ (iii) $\frac{457}{63}$ (iv) $\frac{443}{61}$ (v) $\frac{471}{65}$

Assignment Key

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