

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

1. Expand the following base power 4^4

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

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

(i) $\frac{1}{16}$ (ii) 1 (iii) $\frac{1}{32}$ (iv) $\frac{1}{625}$ (v) $\frac{1}{8}$

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

(i) -216 (ii) 16 (iii) -64 (iv) 256 (v) -1

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

(i) $\frac{1}{625}$ (ii) $(\frac{-1}{27})$ (iii) $\frac{1}{25}$ (iv) $(\frac{-1}{125})$ (v) $(\frac{-1}{343})$

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

(i) $\frac{3125}{243}$ (ii) $\frac{15625}{729}$ (iii) 1 (iv) $\frac{625}{81}$ (v) $\frac{16807}{243}$

6. Expand the following base power $(\frac{1}{5})^{-2}$

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

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

(i) $(\frac{-64}{27})$ (ii) $(\frac{-8}{27})$ (iii) $\frac{16}{9}$ (iv) -8 (v) $\frac{256}{81}$

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

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

9. Simplify $\frac{(-4)^2}{5^2}$

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

(iv) $(\frac{4}{5})^2$ (v) $(\frac{4}{5})^3$

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

(i) -432 (ii) -429 (iii) -433 (iv) $(-432)^2$ (v) -434

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

(i) 65^{-1} (ii) 64^{-1} (iii) 64^{-2} (iv) 66^{-1} (v) 62^{-1}

12. The value of $3^3 \div 2^3$

(i) $\frac{9}{2}$ (ii) $(\frac{27}{8})^2$ (iii) $\frac{25}{8}$ (iv) $\frac{29}{8}$ (v) $\frac{27}{8}$

13. The value of $3^{-2} \div 2^{-2}$

- (i) $\frac{4}{7}$ (ii) $\frac{2}{3}$ (iii) $\frac{4}{9}$ (iv) $\left(\frac{4}{9}\right)^2$ (v) $\frac{2}{9}$
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14. The value of $\left(\frac{-3}{2}\right)^3 \div \left(\frac{1}{2}\right)^3$

- (i) -30 (ii) $(-27)^2$ (iii) -25 (iv) -28 (v) -27
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15. The value of $\left(\frac{2}{3}\right)^{-2} \div \left(\frac{1}{3}\right)^{-2}$

- (i) 5^{-1} (ii) 1 (iii) 4^{-2} (iv) 7^{-1} (v) 4^{-1}
-

16. Find the value of $125^{\left(\frac{5}{3}\right)}$

- (i) 3127 (ii) 3126 (iii) 3124 (iv) 3123 (v) 3125
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17. Find the value of $\left(\frac{16}{9}\right)^{(5/2)}$

- (i) $\frac{1022}{243}$ (ii) $\frac{1024}{243}$ (iii) $\frac{38}{9}$ (iv) $\frac{1024}{241}$ (v) $\frac{1024}{245}$
-

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

- (i) $\left(\frac{-1}{243}\right)$ (ii) $\frac{1}{81}$ (iii) $\frac{1}{243}$ (iv) $\frac{1}{245}$ (v) $\frac{1}{241}$
-

19. Find the value of $\left(\frac{25}{16}\right)^{(-3/2)}$

(i) $\frac{64}{127}$ (ii) $\frac{64}{123}$ (iii) $\frac{62}{125}$ (iv) $\frac{64}{125}$ (v) $\frac{66}{125}$

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

(i) 106 (ii) 104 (iii) 107 (iv) 105 (v) 102

21. $\sqrt{\frac{121}{64}} =$

(i) $\frac{9}{8}$ (ii) $\frac{11}{8}$ (iii) $\frac{11}{10}$ (iv) $\frac{13}{8}$ (v) $\frac{11}{6}$

22. $\sqrt[3]{\frac{1}{64}} =$

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

23. $\sqrt{1.6900} =$

(i) 1.3 (ii) 1.4 (iii) 0.13 (iv) 1.2 (v) 1.5

24. $\sqrt[3]{0.2160} =$

(i) 0.7 (ii) 0.06 (iii) 0.5 (iv) 0.6 (v) 0.8

25. Simplify $\frac{\sqrt[3]{1331} + \sqrt[3]{1728}}{\sqrt[3]{216} - \sqrt[3]{1000}} =$

(i) $\left(-\frac{21}{4}\right)$ (ii) $\left(-\frac{23}{4}\right)$ (iii) $\left(-\frac{25}{4}\right)$ (iv) $\left(-\frac{23}{6}\right)$ (v) $\left(-\frac{23}{2}\right)$

26. Simplify $\frac{\sqrt{36} - \sqrt{9}}{\sqrt{144} + \sqrt{121}} =$

- (i) $\frac{1}{23}$ (ii) $\frac{3}{25}$ (iii) $\frac{5}{23}$ (iv) $\frac{1}{7}$ (v) $\frac{3}{23}$
-

27. $\left[(3^5)^4 \times (3^3)^5 \right] \div 3^{35}$

- (i) 0 (ii) 4 (iii) 2 (iv) 3 (v) 1
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28. $\left[\left(\frac{9}{6}\right)^{-2} \times \left(\frac{2}{3}\right)^{-2} \right] \div \left[\left(\frac{6}{9}\right)^2 \times \left(\frac{3}{2}\right)^2 \right] =$

- (i) $\frac{2}{3}$ (ii) $\frac{9}{6}$ (iii) 0 (iv) 1 (v) (-1)
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29. Simplify $9^{-1} + 5^0 + 6^1 + 8^{-1}$

- (i) $\frac{535}{74}$ (ii) $\frac{173}{24}$ (iii) $\frac{521}{72}$ (iv) $\frac{507}{70}$ (v) $\frac{523}{72}$
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Assignment Key

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