



1. Expand the following base power 5^2

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

2. Expand the following base power 3^{-3}

- (i) $\frac{1}{27}$ (ii) $\frac{1}{216}$ (iii) $\frac{1}{9}$ (iv) $\frac{1}{81}$ (v) $\frac{1}{729}$

3. Expand the following base power $(-3)^2$

- (i) 36 (ii) 1 (iii) -3 (iv) 9 (v) -27

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

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

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

- (i) $\frac{25}{16}$ (ii) $\frac{5}{4}$ (iii) $\frac{9}{16}$ (iv) $\frac{125}{64}$ (v) $\frac{49}{16}$

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

- (i) $\frac{81}{256}$ (ii) $\frac{9}{16}$ (iii) $\frac{27}{64}$ (iv) $\frac{1}{8}$ (v) $\frac{27}{8}$

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

- (i) $(\frac{-16807}{32})$ (ii) $\frac{625}{16}$ (iii) $(\frac{-243}{32})$ (iv) $(\frac{-3125}{32})$ (v) $\frac{15625}{64}$

8. Expand the following base power $(\frac{-1}{4})^{-4}$

- (i) -64 (ii) 256 (iii) -1024 (iv) $\frac{256}{81}$

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

- (i) $\left(\frac{2}{5}\right)^3$ (ii) $\left(\frac{4}{5}\right)^2$ (iii) $\frac{2}{5}$ (iv) $\left(\frac{2}{5}\right)^2$ (v) 0

10. The value of $3^3 \times 3^2$

- (i) 240 (ii) 243 (iii) 246 (iv) 242 (v) 243^2

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

- (i) 402^{-1} (ii) 397^{-1} (iii) 400^{-1} (iv) 400^{-2} (v) 401^{-1}

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

- (i) $\left(\frac{-6}{25}\right)^2$ (ii) $\left(\frac{-8}{25}\right)^2$ (iii) $\left(\frac{-8}{25}\right)$ (iv) $\left(\frac{-8}{23}\right)$ (v) $\left(\frac{-2}{5}\right)$

13. The value of $(-4)^{-3} \div (-5)^{-2}$

- (i) $\left(\frac{-27}{64}\right)^2$ (ii) $\left(\frac{-25}{62}\right)^2$ (iii) $\left(\frac{-25}{64}\right)^2$ (iv) $\left(\frac{-25}{64}\right)$ (v) $\left(\frac{-23}{64}\right)^2$

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

- (i) -1 (ii) -2 (iii) 2 (iv) -4 (v) $(-1)^2$

15. The value of $\left(\frac{-5}{3}\right)^{-2} \div \left(\frac{1}{2}\right)^{-2}$

- (i) $\frac{7}{100}$ (ii) $\left(\frac{9}{100}\right)^2$ (iii) $\frac{9}{98}$ (iv) $\frac{11}{100}$ (v) $\frac{9}{100}$

16. Find the value of 5^3

- (i) 125 (ii) 126 (iii) 122 (iv) 124 (v) 127

$$(3/2)$$

17. Find the value of $\left(\frac{25}{4}\right)$

- (i) $\frac{125}{8}$ (ii) $\frac{127}{8}$ (iii) $\frac{25}{2}$ (iv) $\frac{125}{6}$ (v) $\frac{123}{8}$

$$\left(\frac{-2}{5}\right)$$

18. Find the value of (-3125)

- (i) $\left(\frac{-1}{25}\right)$ (ii) $\frac{3}{25}$ (iii) $\frac{1}{25}$ (iv) $\frac{1}{27}$ (v) $\frac{1}{23}$

$$\left(\frac{-4}{5}\right)$$

19. Find the value of $_{243}$

- (i) $\frac{1}{83}$ (ii) $\frac{1}{79}$ (iii) $\frac{1}{81}$ (iv) $\frac{1}{27}$ (v) $\left(\frac{-1}{81}\right)$

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

- (i) 716 (ii) 718 (iii) 713 (iv) 714 (v) 715

21. $\sqrt{\frac{49}{225}} =$

- (i) $\frac{1}{3}$ (ii) $\frac{7}{15}$ (iii) $\frac{7}{17}$ (iv) $\frac{7}{13}$ (v) $\frac{3}{5}$

22. $\sqrt[3]{\frac{1}{27}} =$

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

23. $\sqrt{1.9600} =$

- (i) 1.4 (ii) 0.14 (iii) 1.6 (iv) 1.3 (v) 1.5

24. $\sqrt[3]{2.1970} =$

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

25. Simplify $\frac{\sqrt[3]{343} + \sqrt[3]{125}}{\sqrt[3]{27} - \sqrt[3]{1000}} =$

- (i) $\left(\frac{-10}{7}\right)$ (ii) -2 (iii) $\left(\frac{-12}{9}\right)$ (iv) $\left(\frac{-12}{5}\right)$ (v) $\left(\frac{-12}{7}\right)$

26. Simplify $\frac{\sqrt{9} - \sqrt{36}}{\sqrt{4} + \sqrt{64}} =$

- (i) $(\frac{-1}{10})$ (ii) $(\frac{-3}{8})$ (iii) $(\frac{-1}{2})$ (iv) $(\frac{-1}{4})$ (v) $(\frac{-3}{10})$

27. $\left[\left(3^2 \right)^2 \times \left(3^6 \right)^4 \right] \div 3^{28}$

- (i) 3 (ii) 1 (iii) 2 (iv) 0

28. $\left[\left(\frac{5}{3} \right)^{-5} \times \left(\frac{7}{6} \right)^{-5} \right] \div \left[\left(\frac{3}{5} \right)^5 \times \left(\frac{6}{7} \right)^5 \right] =$

- (i) 0 (ii) 1 (iii) (-1) (iv) $\frac{7}{6}$ (v) $\frac{5}{3}$

29. Simplify $6^{-1} + 2^0 + 9^1 + 4^{-1}$

- (i) $\frac{41}{4}$ (ii) $\frac{125}{12}$ (iii) $\frac{21}{2}$ (iv) $\frac{145}{14}$ (v) $\frac{127}{12}$

Assignment Key

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