

7. The value of $(-3)^{-3}$ is

(a) -27

(b) 9

(c) $\frac{-1}{27}$

(d) $\frac{1}{27}$

8. The value of $\left(\frac{3}{4}\right)^{-3}$ is

(a) $\frac{-27}{64}$

(b) $\frac{64}{27}$

(c) $\frac{-9}{4}$

(d) $\frac{27}{64}$

9. $(3^{-6} \div 3^4) = ?$

(a) 3^{-2}

(b) 3^2

(c) 3^{-10}

(d) 3^{10}

10. If $\left(\frac{5}{12}\right)^{-4} \times \left(\frac{5}{12}\right)^{3x} = \left(\frac{5}{12}\right)^5$, then $x = ?$

(a) -1

(b) 1

(c) 2

(d) 3

11. $\left(\frac{3}{5}\right)^0 = ?$

(a) $\frac{5}{3}$

(b) $\frac{3}{5}$

(c) 1

(d) 0

12. $\left(\frac{-6}{5}\right)^{-1} = ?$

(a) $\frac{6}{5}$

(b) $\frac{-6}{5}$

(c) $\frac{5}{6}$

(d) $\frac{-5}{6}$

13. $\left(\frac{-1}{3}\right)^3 = ?$

(a) $\frac{-1}{9}$

(b) $\frac{1}{9}$

(c) $\frac{-1}{27}$

(d) $\frac{1}{27}$

C. 14. Fill in the blanks.

- (i) 360000 written in standard form is
- (ii) 0.0000123 written in standard form is
- (iii) $\left(\frac{-2}{3}\right)^{-2} = \dots\dots\dots$
- (iv) 3×10^{-3} in usual form is
- (v) 5.32×10^{-4} in usual form is
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VIII Test - 9

1) The value of $(-3)^{-3}$ is (a) -27 (b) 9 (c) $-\frac{1}{27}$ (d) $\frac{1}{27}$

Solution:-

$$(-3)^{-3} = \left(-\frac{1}{3}\right)^3 = -\frac{1}{27} \quad (c)$$

2) The value of $\left(\frac{3}{4}\right)^{-3}$ is (a) $-\frac{27}{64}$ (b) $\frac{64}{27}$ (c) $-\frac{9}{4}$ (d) $\frac{27}{64}$

Solution:-

$$\left(\frac{3}{4}\right)^{-3} = \left(\frac{4}{3}\right)^3 = \frac{64}{27} \quad (b)$$

3) $3^{-6} \div 3^4 = ?$ (a) 3^{-2} (b) 3^2 (c) 3^{-10} (d) 3^{10}

Solution:-

$$\frac{3^{-6}}{3^4} = 3^{-6-4} = 3^{-10} = \frac{1}{3^{10}} \quad (c)$$

4) If $\left(\frac{5}{12}\right)^{-4} \times \left(\frac{5}{12}\right)^{3x} = \left(\frac{5}{12}\right)^5$, then $x = ?$
(a) -1 (b) 1 (c) 2 (d) 3

Solution:-

$$\left(\frac{5}{12}\right)^{-4+3x} = \left(\frac{5}{12}\right)^5$$

$$\therefore -4+3x = 5$$

$$3x = 5+4 = 9$$

$$x = \frac{9}{3} = \underline{\underline{3}} \quad (d)$$

5) $\left(\frac{3}{5}\right)^0 = \underline{\quad}$ (a) $\frac{5}{3}$ (b) $\frac{3}{5}$ (c) 1 (d) 0

Solution:- 1 (c)

6) $\left(-\frac{6}{5}\right)^{-1} =$ (a) $\frac{6}{5}$ (b) $-\frac{6}{5}$ (c) $\frac{5}{6}$ (d) $-\frac{5}{6}$

Solution:-

$$\left(-\frac{6}{5}\right)^{-1} = \left(-\frac{5}{6}\right)^1 = -\frac{5}{6} \quad (d)$$

7) $\left(-\frac{1}{3}\right)^3 =$ (a) $-\frac{1}{9}$ (b) $\frac{1}{9}$ (c) $-\frac{1}{27}$ (d) $\frac{1}{27}$

Solution:- $\left(-\frac{1}{3}\right)^3 = -\frac{1}{3^3} = -\frac{1}{27} \quad (c)$

8) 360000 written in standard form is 3.6×10^5

Solution:-

$$3.60000 = 3.6 \times 10^5$$

9) 0.0000123 written in standard form is 1.23×10^{-5}

Solution:-

$$0.0000123 = 1.23 \times 10^{-5}$$

10) $\left(-\frac{2}{3}\right)^{-2} = \frac{9}{4}$

Solution:- $\left(-\frac{3}{2}\right)^2 = \frac{(-3)^2}{2^2} = \frac{9}{4}$

11) 3×10^{-3} in usual form is 0.003

Solution:-

$$\frac{3}{10^3} = \frac{3}{1000} = 0.003$$

12) 5.32×10^{-4} in usual form is 0.000532

Solution:-

$$5.32 \times 10^{-4} = \frac{5.32}{10^4} = \frac{5.32}{10000} = 0.000532$$