

CBSE 8th Class Mathematics

Chapter Exponent Power and Radicals and Scientific Notation

CBSE TEST PAPER - 02

1. The base in the expression 10^{24} is _____.

- (a) 1 (b) 10 (c) 0 (d) 24

2. Multiplicative inverse of 7^{-2} is _____.

- (a) 49 (b) 5 (c) 7 (d) -14

3. Fill in the blank $a^m \times a^n = a^{\dots}$ where m and n are natural numbers:-

- (a) mn (b) m + n (c) m - n (d) m/n

4. In exponential form 149,600,000,000 m is given by :

- (a) 1.496×10^{11} m (b) 1.496×10^8 m (c) 14.96×10^8 m (d) 14.96×10^{11} m

5. 1 micron is equals to

- (a) 1/10000 m (b) 10^6 m (c) 10^{-6} m (d) 10^{-5} m

6. Simplify : $(6^{-1} - 8^{-1})^{-1} + (2^{-1} - 3^{-1})^{-1}$

7. If $p/q = (3/2)^{-2} \div (6/7)^0$ then find value of $(p/q)^{-3}$

8. Find the value of m if $(2/9)^3 \times (9/2)^6 = (2/9)^{2m-1}$

9. By what number should $(2/3)^{-2}$ be multiplied to get $(4/7)^{-1}$

10. By what number should $(5/4)^{-3}$ be divided , so that quotient $(15/16)^{-2}$

11. Find the value of x^{-3} if $x = (5/8)^{-2} \times (12/15)^{-2}$

12. Simplify : $\frac{10^{-1} x^5 x^{-3} x^4 x^{-1}}{10 x^5 x^{-5} x^4 x^{-2}}$

13. Solve for x : $81^{-2} \div 729^{1-x} = 9^{2x}$

14. 26. Express the number appearing in the following statements in standard form.

(i) 1 micron is equal to 1/1000000 m. (ii) Charge of an electron is 0.000,000,000,000,000,16 coulomb.

(iii) Size of a bacteria is 0.0000005 m (iv) Size of a plant cell is 0.00001275 m

(v) Thickness of a thick paper is 0.07 mm (vi) Mass of Uranus = 86,800,000,000,000,000,000,000 kg

15. Compare the following numbers: (i) 2.7×10^{12} ; 1.5×10^8 (ii) 4×10^{14} ; 3×10^{17}