

CBSE 8th Class Mathematics

Chapter Exponent Power and Radicals and Scientific Notation

CBSE TEST PAPER - 01

1. Express 256 as a power 4.

- (a) 4^8 (b) 2^8 (c) 4^4 (d) none of these

2. Express 729 as a power of 3

- (a) 3^8 (b) 3^6 (c) 9^3 (d) none of these

3. Express 432 as a product of powers of prime factors.

- (a) $2^3 \times 3^3$ (b) $2^4 \times 3^3$ (c) 16×27 (d) none of these

4. The value of $(-1)^{500}$ is

- (a) -1 (b) 1 (c) 0 (d) none of these

5. Simplify and write in exponential form of $(-4)^{100} \times (-4)^{20}$

- (a) $(-4)^{120}$ (b) $(-4)^{80}$ (c) $(-4)^{2000}$ (d) none of these

6. Show that $3^0 = 1$

7. Simplify: $(3^0 + 4^0 + 5^0)^0$

8. Write the standard form of the followings: (a) 52,00,00,000 (b) 0.0000007 (c) 0.000035

9. Express the following numbers in usual form. (i) 3.52×10^5 (ii) 7.54×10^{-4} (iii) 3×10^{-5}

10. In a stack there are 5 books each of thickness 20mm and 5 paper sheets each of thickness 0.016 mm. What is the total thickness of the stack.

11. Find the value of m for which $5^m \div 5^{-3} = 5^5$.

12. Simplify:

$$(i) \frac{25 \times t^{-4}}{5^{-3} \times 10 \times t^{-8}} \quad (t \neq 0) \qquad (ii) \frac{3^{-5} \times 10^{-5} \times 125}{5^{-7} \times 6^{-5}} \qquad (iii) \frac{3^5 \times 10^5 \times 25}{5^7 \times 6^5}$$

13. Find the value of x if $(2^{3x-1} + 10) \div 7 = 6$

14. Simplify: $\frac{1}{1+a^{n-m}} + \frac{1}{1+a^{m-n}}$

15. Find the value of x if $(5^{2x+1} \div 25) = 125$