

JSUNIL TUTORIAL PUNJABI COLONY GALI NO. 01

CBSE TEST PAPER-01 CLASS - IX MATHEMATICS (Number System)

1. Which of the following rational numbers have terminating decimal representation?

- [1] $3/5$ [2] $3/13$ [3] $40/27$ [4] $23/7$

2. How many rational numbers can be found between two distinct rational numbers?

- (i) Two (ii) Ten (iii) Zero (iv) Infinite

3. The value of $(2+\sqrt{3})(2-\sqrt{3})$ is

- (i) 1 (ii) -1 (iii) 2 (iv) none of these

4. $(27)^{-2/3}$ is equal to

- (i) 9 (ii) $1/9$ (iii) 3 (iv) none of these

5. Simplify: $\sqrt[3]{2} \times \sqrt[4]{3}$

6. Find the two rational numbers between $1/2$ and $1/3$

7. Find two irrational numbers between 2 and 3.

8. Multiply $\sqrt{5}$ by $6\sqrt{2}$.

9. Express 0.8888... in the form p/q

10. Simplify by rationalizing denominator $\frac{7 + 3\sqrt{5}}{7 - 3\sqrt{5}}$

11. Simplify $\{(625)^{-1/2}\}^{-1/4}\}^2$

12. Visualize 3.76 on the line using successive magnification

13. Prove that $\frac{1}{1+x^{b-a}+x^{c-a}} + \frac{1}{1+x^{a-b}+x^{c-b}} + \frac{1}{1+x^{a-c}+x^{b-c}} = 1$

14. Prove $\frac{1}{1+\sqrt{2}} + \frac{1}{\sqrt{2}+\sqrt{3}} + \frac{1}{\sqrt{3}+\sqrt{4}} \dots \dots \dots + \frac{1}{\sqrt{8}+\sqrt{9}} = 2$

15. Represent $1.\overline{23}$ in rational form.