CLASS : IX PT 1 REVISION QUESTIONS SUB : MATH

1. What type of decimal expansion $\frac{8}{7}$ was?
2. Represent $\sqrt{40}$ on a number line.
3. Represent $\sqrt{7.4}$ on a number line.
4. Show that 4.987245 is a rational number.
5. Show that 1.272727…= $1.\overline{27}$ can be expressed in the form $\frac{p}{q}$, where p and q are integers and q ≠ 0.
6. Show that 0.235353 = $0.2\overline{35}$ can be expressed in the form $\frac{p}{q}$, where p and q are integers and q ≠ 0.
7. Find 4 rational numbers between $\frac{1}{7}$ and $\frac{2}{7}$.
8. Express the following in the form $\frac{p}{q}$, where p and q are integers and q ≠ 0.
   i. $0.\overline{47}$, ii. $0.\overline{001}$
9. Visualise the representation of $5.3\overline{7}$ on the number line up to 5 decimal places, that is up to 5.37777.
10. Add $2\sqrt{2} + 5\sqrt{3}$ and $\sqrt{2} - 3\sqrt{3}$.
11. Rationalise the denominator of $\frac{1}{2+\sqrt{3}}$.

12. Simplify 1) $2^{2/3} \cdot 2^{1/3}$ 2) $(3^{1/5})^4$ 3) $(13)^{1/5} \cdot (17)^{1/5}$.
13. Check whether -2 and 2 are zeroes of the polynomial x+2.
14. Verify whether 2 and 0 are zeroes of the polynomial $x^2 - 2x$.
15. Divide p(x) by g(x), where $p(x) = x + 3x^2 - 1$ and $g(x) = 1 + x$.
16. Factorise $49a^2 + 70ab + 25b^2$.
17. Expand $(3a+4b)^3$.
18. Factorise $4x^2 + y^2 + z^2 - 4xy - 2yz + 4xz$.
19. Without actually calculating the cubes , find the value of $(-9)^3 + (5)^3 + (4)^3$.
20. Three vertices of a square are (-3,2) (-3, -4) (5 , -4). Find 3rd vertex.
21. Find 2 solutions for 3x+4=0.
22. Write 5 solutions for $\pi x + y = 9$.
23. Give the geometric representations of 2x+9=0 as an equation.
    i) in one variable ii) in two variables.
24. Explain Euclids 5th postulate?
25. In fig; if AC = BD, then prove that AB = CD.