

ST. THOMAS SCHOOL, SAHIBABAD
PERIODIC TEST – I (2024-25)
WORKSHEET
CLASS IX
MATHEMATICS (041)

TIME: 1 Hour

MM: 20

1.	Find the value of $(\frac{54}{250})^{\frac{1}{3}}$	[1]
2.	Write a rational and an irrational number between $\frac{5}{7}$ and $\frac{6}{7}$	[1]
3.	Is $4\sqrt{28} \div 3\sqrt{7}$ an irrational number? State true or false with reason.	[1]
4.	Without actually calculating the cubes, find the value of: $(-14^3) + 8^3 + 6^3$	[1]
5.	Express $0.\overline{078}$ as a rational number in the form $\frac{p}{q}$.	[2]
6.	Find the value of $x^3 + y^3$, if $x + y = 5$ and $xy = 6$.	[2]
7.	Represent $\sqrt{5}$ on a number line.	[2]
8.	Find the value of a and b if $\frac{3}{\sqrt{3}+1} + \frac{3}{\sqrt{3}-1} = a + b\sqrt{3}$	[3]
9.	Using factor theorem factorise: $x^3 - 13x^2 + 17x + 12$.	[3]
10.	Find the values of a and b, if $(x + 1)$ and $(x - 2)$ are the factors of $x^3 - ax^2 + 7x - b$.	[4]