

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

**TIME: 1 Hour**

**MM: 20**

1.	The LCM of two prime numbers $p$ and $q$ is $221(p > q)$ . Find the value of $3p - q$ .	1
2.	If $\alpha, \beta$ are the zeroes of the polynomial $x^2 - 1$ , then $\alpha + \beta =$	1
3.	Number of solutions of the pair of linear equation $x + y = 8$ and $5x + 5y = 40$ are.....	1
4.	A card is selected from a deck of 52 cards. What is the probability of getting a red face card?	1
5.	If $\alpha, \beta$ are the zeroes of the quadratic polynomial $kx^2 + 4x + 4$ such that $\alpha^2 + \beta^2 = 24$ , find the value of $k$ .	2
6.	Solve the following pair of linear equations: $3x - 5y = 4, 2y + 7 = 9x$	2
7.	If a number $x$ is chosen from the numbers 1,2,3 and a number $y$ is selected from the numbers 1,4,9 find the probability $p(xy < 9)$	2
8.	Two brands of chocolates are available in packs of 24 and 15 respectively. If Riya wants to buy an equal number of chocolates of both kinds. What is the least number of boxes of each kind would Riya needs to buy?	3
9.	If $\alpha, \beta$ are the zeroes of the quadratic polynomial $x^2 - 2x + 3$ , find a quadratic polynomial whose zeroes are $\frac{\alpha-1}{\beta-1}, \frac{\beta-1}{\alpha-1}$	3
10.	Places A and B are 80 km apart from each other on a highway. A car starts from A and another from B at the same time. If they move in same direction they meet in 8 hours and if they move each other they meet in 1 hour 20 minutes. Find the speed of the cars.	4