



INDIAN SCHOOL NIZWA - WORKSHEET

MATHEMATICS CH-5. Linear Inequalities

Name: _____

Date: 09-08-2025

Class: XI Sec: A

1.	Solve: $-15 < \frac{3(x-2)}{5} \leq 0$	
2.	Solve: $2x + 10 \geq 0$ and represent the solution on a number line.	
3.	Solve: the inequality: $\frac{x}{2} < \frac{5x-2}{3} - \frac{7x-3}{5}$.	
4.	Solve: $x + \frac{x}{2} + \frac{x}{3} < 11$.	
5.	Solve: $\frac{2x-3}{4} + 8 \geq 2 + \frac{4x}{3}$	
6.	Solve the following system of linear inequalities: $2x + 9 > 5 - 3x$; $5x - 7 \leq 3x + 11$.	
7.	Solve: $7 \leq \frac{3x+11}{2} \leq 11$	
8.	Solve: the inequality: $\frac{x}{2} < \frac{5x-2}{3} - \frac{7x-3}{5}$.	
9.	Solve: $ 2x - 1 \leq 3$.	
10.	Find all pairs of consecutive odd positive integers both of which are smaller than 10 such that their sum is more than 11.	
11.	Aditya's mother gave him Rs. 200 to buy some packets of rice and maggie from the market. The cost of one packet of rice is Rs. 30 and that of one packet of maggie is Rs. 20. Let x denotes the number of packet of rice and y denotes the number of packets of maggie. 	
	(a) Find the inequality that represents the given situation. (1) (b) If he buys 4 packets of rice and spends entire amount of Rs. 200, then find the maximum number of packets of maggie that he can buy. (1) (c) Solve the following inequality for real x: $4x + 3 < 5x + 7$ (2)	
12.	The longest side of a triangle is twice the shortest side and the third side is 2 cm longer than the shortest side. If the perimeter of the triangle is more than 166 cm, then find the minimum length of the shortest side.	