



**INDIAN SCHOOL AL WADI AL KABIR
WORKSHEET 2026-27**

CLASS XI

LINEAR INEQUALITIES_MCQ_WORKSHEET

Questions of 1 mark each

Q.1.	Solve for x : $4x + 3 < 6x + 7$.			
	A) $x < 2$	B) $x > 2$	C) $x < -2$	D) $x > -2$
Q.2.	Which of the following represents the solution set for $-3x + 12 \leq 0$?			
	A) $(-\infty, 4]$	B) $[4, \infty)$	C) $(-\infty, -4]$	D) $[-4, \infty)$
Q.3.	 Based on the number line above, which inequality is represented?			
	A) $x \leq -1$	B) $x < -1$	C) $x \geq -1$	D) $x > -1$
Q.4.	Solve: $ x - 1 \leq 2$.			
	A) $-1 \leq x \leq 3$	B) $1 \leq x \leq 3$	C) $x \leq 3$	D) $-3 \leq x \leq 1$
Q.5.	Solve: $\frac{2x-1}{3} \geq \frac{3x-2}{4} - \frac{2-x}{5}$.			
	A) $x \geq 2$	B) $x \leq 2$	C) $x \geq 4$	D) $x \leq 4$
Q.6.	A solution is to be kept between 22°C and 25°C . What is the range in Fahrenheit (F) if $C = \frac{5}{9}(F - 32)$?			
	A) $71.6 < F < 77.$	B) $70 < F < 77.$	C) $71.6 < F < 76.$	D) $71.6 < F < 80$
Q.7.	Solve: $5x - 3 < 3x + 1$ when x is an integer.			
	A) $\{..., -1, 0, 1\}$	B) $\{..., -1, 0, 1, 2\}$	C) $\{1, 2, 3, ...\}$	D) $\{0, 1\}$
Q.8.	Solve: $-5 \leq \frac{2-3x}{4} \leq 9$.			
	A) $-\frac{34}{3} \leq x \leq \frac{22}{3}$	B) $-\frac{22}{3} \leq x \leq \frac{34}{3}$	C) $x \geq \frac{22}{3}$	D) $x \leq -\frac{34}{3}$
Q.9.	If $\frac{x-2}{x+5} > 2$, then x lies in the interval:			
	A) $(-12, -5)$	B) $(-\infty, -12) \cup (-5, \infty)$	C) $(-5, 12)$	D) $(5, 12)$

Q.10	The water acidity in a pool is considered normal when the average pH reading of three daily measurements is between 7.2 and 7.8. If the first two pH readings are 7.48 and 7.85, find the range of pH value for the third reading.						
	A) $6.27 < x < 8.07$		B) $7.00 < x < 8.00$		C) $6.50 < x < 7.50$		D) $7.20 < x < 7.80$
Q.11	A company manufactures cassettes. Its cost and revenue functions are $C(x) = 26000 + 30x$ and $R(x) = 43x$. How many cassettes must be sold to realize some profit?						
	A) More than 2000		B) More than 1500		C) More than 2500		D) More than 3000
Q.12	If $a > b$ and $c < 0$, then $\frac{a}{c}$ and $\frac{b}{c}$ are related as:						
	A) $a/c > b/c$		B) $a/c < b/c$		C) $a/c = b/c$		D) $a/c \leq b/c$
Q.13	Assertion (A): The solution of $ x < 2$ is $-2 < x < 2$. Reason (R): For any positive real number a , $ x < a \Rightarrow -a < x < a$.						
Q.14.	Assertion (A): If $x < y$ and $z < 0$, then $xz > yz$. Reason (R): When an inequality is multiplied by a negative number, the sign of the inequality is reversed.						
ANSWER KEY							
Q.1.	D) $x > -2$	Q.5.	B) $x \leq 2$	Q.9.	A) $(-12, -5)$	Q.13.	A
Q.2.	B) $[4, \infty)$	Q.6.	A) $71.6 < F < 77$.	Q.10.	A) $6.27 < x < 8.07$	Q.14.	A
Q.3.	B) $x < -1$	Q.7.	$\{..., -1, 0, 1\}$	Q.11.	A) More than 2000		
Q.4.	A) $-1 \leq x \leq 3$	Q.8.	A) $-\frac{34}{3} \leq x \leq \frac{22}{3}$	Q.12.	B) $a/c < b/c$		