NAME _____ **INDEX NUMBER** _____

SCHOOL_____ **DATE**   _____

LINEAR INEQUALITIES

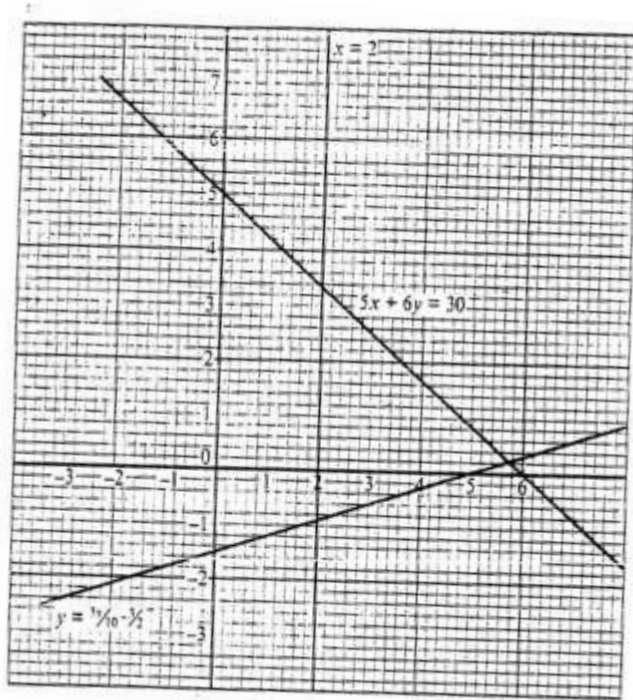| *KCSE 1989 – 2012 Form 2 Mathematics*	Working Space
1. **1999 Q 2 P2** Find the range of x if $2 \leq 3 - x < 5$ (2 marks)	
2 **2000 Q 6 P2** Find all the integral value of x which satisfy the inequalities $2 (2-x) < 4x -9 < x + 11$ (3 marks)	

3	**2001 Q 16 P2** The diagram below shows the graph of: $y = \frac{3}{10}x - \frac{3}{2}$, $5x + 6y = 30$ and $x = 2$ By shading the unwanted region, determine and label the region R that satisfies the three inequalities. $Y \geq \frac{3}{10}x - \frac{3}{2}$, $5x + 6y \geq 30$ and $x \geq 2$ (4 marks)	
4	**2002 Q 8 P1** Solve the following inequalities and represent the solutions on a single number line: $3 - 2x < 5$ $4 - 3x \geq -8$ (3 marks)	

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		Working Space
5	**2003 Q 12 P2** A mixed school can accommodate a maximum of 440 students. The number of girls must be at least 120 while the number of boys must exceed 150. Taking x to represent the number of boys and y the number of girls, write down all the inequalities representing the information above. (3 marks)	
6	**2004 Q 15 P2** Form the three inequalities that satisfy the given region R. 	

		Working Space
7	**2006 Q 5 P1** Solve the inequality $3 - 2x < x \leq \frac{2x+5}{3}$ and show the solution on the number line (4 marks)	
8	**2010 Q 5 P1** The sum of three consecutive odd integers is greater than 219.Determine the first three such integers. (4 marks)	
9	**2011 Q 4 P2** a) Solve the inequalities $2x - 5 > -11$ and $3 + 2x \leq 13$, giving the answer as a combined inequality. (3 marks) b) List the integral values of x that satisfy the combined inequality in (a) above (1 mark)	