ALGEBRA (Q 2 & 3, PAPER 1)

LESSON NO. 8: INEQUALITIES

2007

2 (a) Find the solution set of $4x-15<1,\ x\in\mathbf{N}$.

2006

2 (c) (i) Find the smallest natural number k such that
$2x+4(x+3)+7(2x+4)<20(x+k)$.

2005

3 (b) (i) Find A, the solution set of $3x-2\le 4,\ x\in\mathbf{Z}$.

(ii) Find B, the solution set of $\frac{1-3x}{2}<5,\ x\in\mathbf{Z}$.

(iii) List the elements of $A\cap B$.

2003

3 (a) Find the solution set of
$5x-3<12,\ x\in\mathbf{N}$.

2002

3 (a) Solve the inequality $5x+1\ge 4x-3,\ x\in\mathbf{R}$ and illustrate the solution set on a number line.

2001

2 (a) Find the solution set of $11-2n>3,\ n\in\mathbf{N}$.

1997

2 (b) Find the solution set E of $9-2x\ge 7,\ x\in\mathbf{N}$.

Find the solution set H of $\frac{1}{4}x-\frac{1}{3}\le\frac{5}{12},\ x\in\mathbf{N}$.

Write down the elements of $H\backslash E$.

ANSWERS

2007 2 (a) $x = \{0, 1, 2, 3\}$

2006 2 (c) (i) $k = 3$

2005 3 (b) (i) $x \leq 2$ or $\{.....-3,-2,-1,0,1,2\}$

(ii) $x > -3$ or $\{-2,-1,0,1,2,3....\}$

(iii) $\{-2,-1,0,1,2\}$

2003 3 (a) $x < 3$ or $\{0, 1, 2\}$

2002 3 (a) $x \geq -4$

2001 2 (a) $n < 4$ or $\{0, 1, 2, 3\}$

1997 2 (b) $E = \{0, 1\}$, $H = \{0, 1, 2, 3\}$, $H \backslash E = \{2, 3\}$