


NICKS & TRICKS

LCOL Guide – Inequalities & Equations

1. Inequalities

**Inequalities = Change Signs
Crossing Over The Crocodile** 

2. Simultaneous equations

STEP 1: Label them 1 & 2

STEP 2: GET RID of an 'x' or 'y'

STEP 3: Sub back in

3. Scientific notation

e.g. '3 x 10⁷' a×10!

Worked Example

Question:

List all the values of x that satisfy the inequality $2 - 3x \geq -6$, $x \in N$.

$$x \in N$$

N are natural numbers.

$$N = \{1, 2, 3 \dots\}$$

$$2 - 3x \geq -6$$

$$2 + 6 \geq 3x$$

$$8 \geq 3x$$

$$8$$

$$\frac{8}{3} \geq x$$

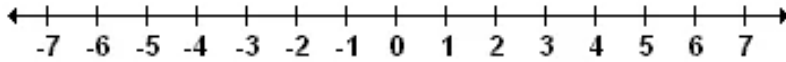
The solution is the set of Natural Numbers (positive whole numbers) less than $2\frac{2}{3}$.

2 Questions – Time yourself!

Question 1

Solve the following inequality and show the solution set on the number line below.

$$5 - \frac{3}{4}x \leq \frac{19}{8}$$



Question 2

Solve the simultaneous equations:

$$2r - s = 10$$

$$rs - s^2 = 12$$