ASSIGNMENT NO.1
COURSE CODE-AI1110
Probability And Random Variables

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Question 1a

Solve the following inequation and write down the solution set:

11x-4<15x+4≤13x+14,x belongs to W

Represent the solution on number line .

Solution

There are two inequatilities.

Lets solve for left inequation.

11x-4<15x+4

$\Rightarrow$ -8<15x-11x

$\Rightarrow$-2<x
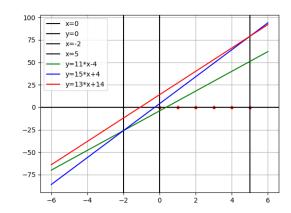
Lets solve for right inequation.

15x+4≤13x+14

$\Rightarrow$ 2x≤10

$\Rightarrow$x≤5

-2<x≤5

This plot shows three lines :
y=11x-4, y=15x+4, y=13x+14.
Red stars are solution points trapped between x=-2 and x=5 on number line y=0 verifying our solution.

x belongs to W

$\Rightarrow x = 0, 1, 2, 3, 4, 5$ is the required solution

THIS PLOT REPRESENTS A NUM-
BER LINE WITH REQUIRED SOLIUTION
POINTS.