

Assignment 9

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Download all python codes from

<https://github.com/satyasm45/Summer-Internship/tree/main/Assignment-9/Codes>

and latex-tikz codes from

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1 QUESTION No. 2.67

Solve: $3x-7 > 2(x-6)$, $6-x > 11-2x$.

2 EXPLANATION

1) Solving first inequality:

$$3x - 7 > 2(x - 6) \quad (2.0.1)$$

$$\Rightarrow 3x - 7 > 2x - 12 \quad (2.0.2)$$

$$\Rightarrow x > -5 \quad (2.0.3)$$

$$\Rightarrow x \in (-5, \infty) \quad (2.0.4)$$

2) Solving second inequality:

$$6 - x > 11 - 2x \quad (2.0.5)$$

$$\Rightarrow x > 5 \quad (2.0.6)$$

$$\Rightarrow x \in (5, \infty) \quad (2.0.7)$$

From (2.0.4) and (2.0.7), solution of the given system of inequalities is given by

$$x > 5 \quad (2.0.8)$$

$$\Rightarrow x \in (5, \infty) \quad (2.0.9)$$

$x > -5$

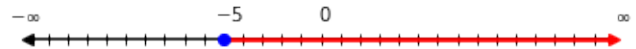


Fig. 2.1: $x > -5$

$x > 5$

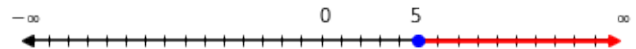


Fig. 2.2: $x > 5$

$x > 5$

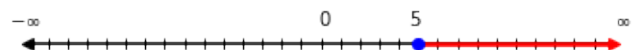


Fig. 2.3: Intersection of 2.1 and 2.2