Linear Inequations Ex 15.2 Q9

Consider the first inequation,

$$3x - 1 \geq 5$$
$$3x \geq 5 + 1$$
$$3x \geq 6$$
$$x \geq 2 \qquad \ldots(i)$$

Consider the second inequation,

$$x + 2 > -1$$
$$x > -1 - 2$$
$$x > -3 \qquad \ldots(ii)$$

From (i) and (ii), $[2, \infty]$ is the solution set of the simultaneous equations.

Linear Inequations Ex 15.2 Q10

Consider the first inequation,

$$11 - 5x > -4$$
$$-5x > -4 - 11$$
$$-5x > -15$$
$$5x < 15$$
$$x < 3 \qquad \ldots(i)$$

Consider the second inequation,

$$4x + 13 \leq -11$$
$$4x \leq -11 - 13$$
$$4x \leq -24$$
$$x \leq -6 \qquad \ldots(ii)$$

From (i) and (ii), $[-\infty, -6]$ is the solution set of the simultaneous equations.

Linear Inequations Ex 15.2 Q11

Consider the first inequation,

$$4x - 1 \leq 0$$
$$4x > -1$$
$$-5x \leq -15$$
$$x \leq \frac{1}{4} \qquad \ldots(i)$$

Consider the second inequation,

$$3 - 4x < 0$$
$$-4x < -3$$
$$-x < \frac{-3}{4}$$
$$x > \frac{3}{4} \qquad \ldots(ii)$$

From (i) and (ii), there is no solution set of the simultaneous equations.

********** END **********