

1 Solution Sets

Please indicate the solution set of the following inequalities.

1. $\frac{3-x}{2} < 5$
2. $3 - (x+1)^2 \geq 2 + \frac{2}{3}x$
3. $5(x+3(1-x)+2) \geq 7$
4. $x+2 \geq -\frac{1}{x}$

Solution:

1. $\mathbb{L} = \{x \mid -7 < x\}$
2. $\mathbb{L} = \{x \mid -\frac{8}{3} \leq x \leq 0\}$
3. $\mathbb{L} = \{x \mid x \leq -\frac{9}{5}\}$
4. $\mathbb{L} = \{x \mid x = -1 \vee x > 0\}$