

Q5. $-5 \leq \frac{2-3x}{4} \leq 9$

Sol: we have $-5 \leq \frac{2-3x}{4} \leq 9$

Now, $-5 \leq \frac{2-3x}{4}$

$\Rightarrow -20 \leq 2 - 3x \Rightarrow 3x \leq 2 + 20 \Rightarrow x \leq 22/3$

And $\frac{2-3x}{4} \leq 9$

$\Rightarrow 2 - 3x \leq 36 \Rightarrow 3x \geq 2 - 36 \Rightarrow x \geq -34/3$

$\Rightarrow x \in \left[\frac{-34}{3}, \frac{22}{3} \right]$