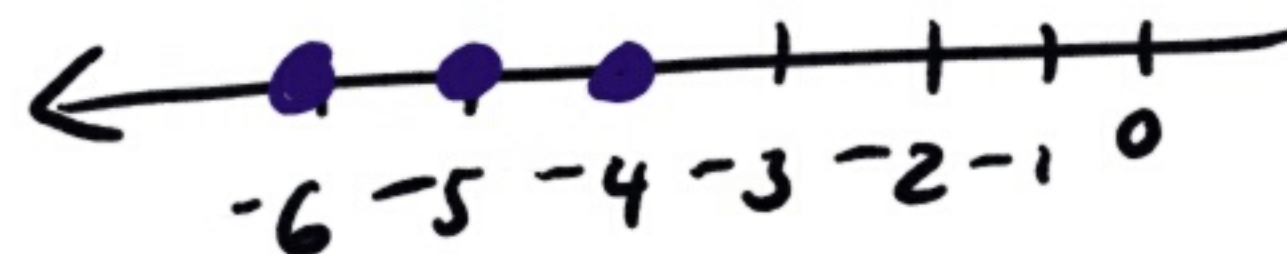


$$Q5) \quad 8x - 1 < 5x - 10, \quad x \in \mathbb{Z}$$

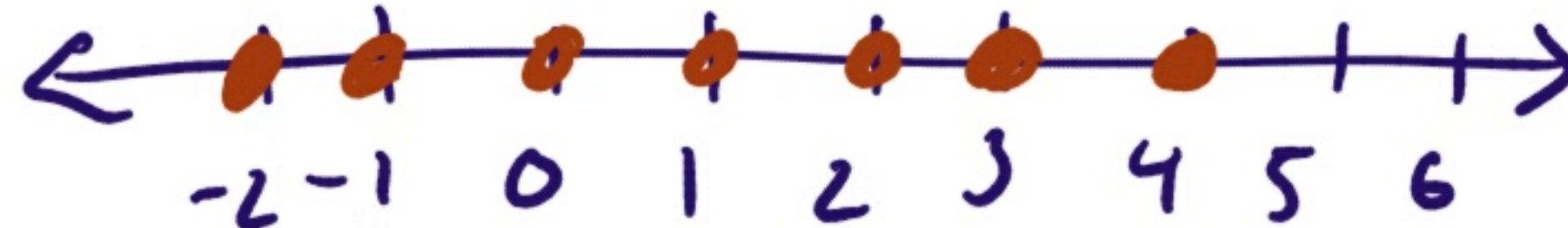
$$\begin{array}{l|l} -5x & 3x - 1 < -10 \\ +1 & 3x < -9 \\ :3 & x < -3 \end{array}$$

$$\begin{array}{l|l} -5x & \\ +1 & \\ :3 & \end{array}$$



$$Q6) \quad 3x + 1 \leq 2x + 5, \quad x \in \mathbb{Z}$$

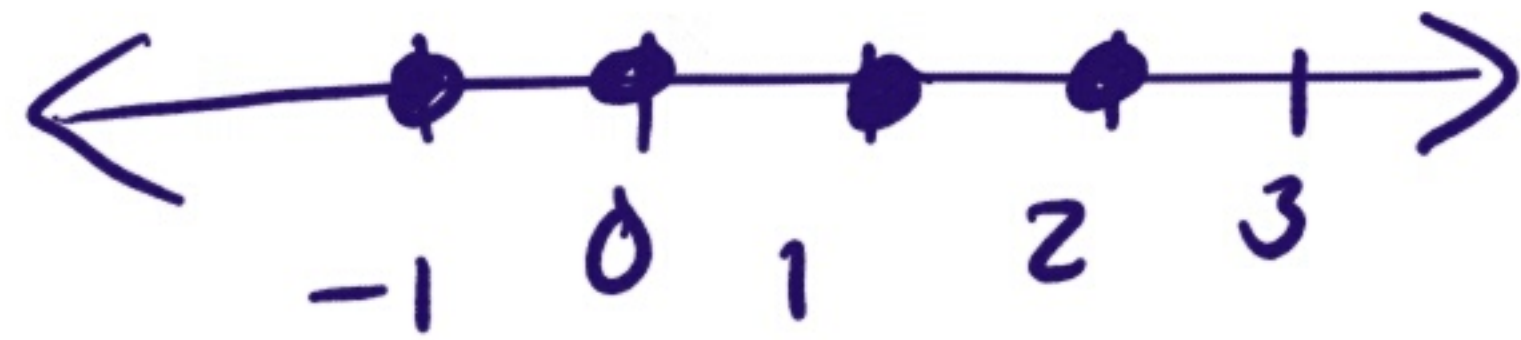
$$\begin{array}{l|l} -2x & 1x + 1 \leq +5 \\ -1 & x \leq 4 \end{array} \begin{array}{l|l} -2x & \\ -1 & \end{array}$$



$$\text{Q7) } 7-x > 4, x \in \mathbb{Z}$$

$$\frac{x(-1)}{-7+x < -4}$$

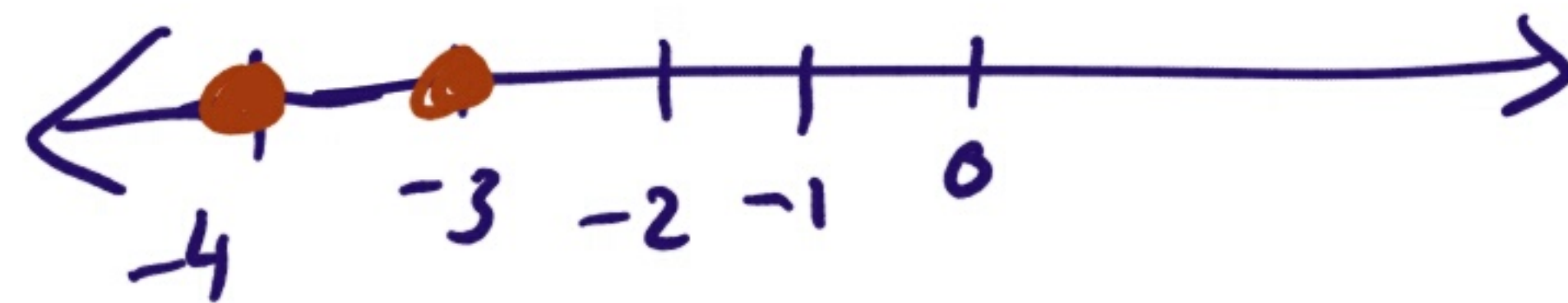
$$\begin{array}{l|l} +7 & x < 3 \\ \hline & \end{array}$$



$$\text{Q8) } 2x-5 \geq 3x-2, x \in \mathbb{R}$$

$$\begin{array}{l|l} -2x & -5 \geq x-2 \\ \hline & \end{array}$$

$$\begin{array}{l|l} +2 & -3 \geq x \\ \hline & \end{array}$$





Pg 13 Q16

$$5(2x-5) \geq 1 - 2(11-3x), x \in \mathbb{R}.$$

$$10x - 25 \geq 1 - 22 + 6x$$

$$\begin{array}{l|l} -6x & 4x - 25 \geq -21 \\ +25 & 4x \geq 4 \\ \div 4 & x \geq 1 \end{array}$$



Q17 K)  $11 \geq 3x + 2 \quad x \in \mathbb{R}$ .

$$\begin{array}{l} -2 \mid 9 \geq 3x \mid -2 \\ \div 3 \mid 3 \geq x \mid \div 3 \end{array}$$

L:  $3x + 2 > -7 \quad x \in \mathbb{R}$ .

$$\begin{array}{l} -2 \mid 3x > -9 \mid -2 \\ \div 3 \mid x > -3 \mid \div 3 \end{array}$$

$K \cap L \quad \nrightarrow -3 < x \leq 3 \quad \{(-3) \dots 3\}$



Q18, 19 Pg 13.

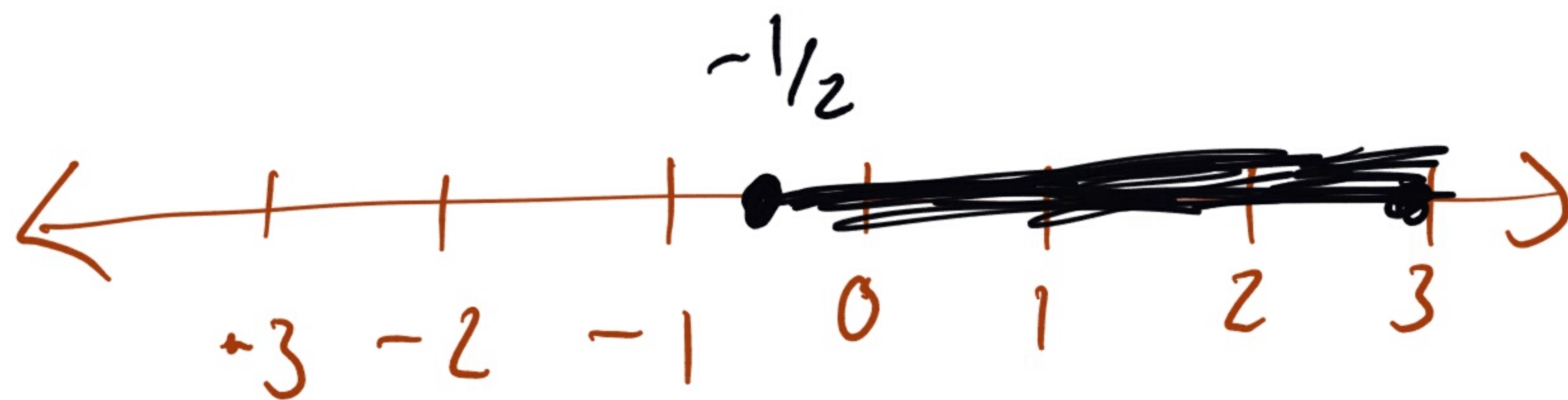


Q18) P  $2 - 3x \leq 4 + x, x \in \mathbb{R}$       Q  $4 + x \leq 7, x \in \mathbb{R}$ .

$$\begin{array}{l|l} -x & 2 - 4x \leq 4 \\ -2 & -4x \leq 2 \\ (-1) & 4x \geq -2 \end{array} \quad \begin{array}{l|l} -x & \\ -2 & \\ (-1) & \end{array} \quad \begin{array}{l|l} -4 & x \leq 3 \\ & \end{array} \quad \begin{array}{l} \\ \\ -4 \end{array}$$

$$\begin{aligned} x &\geq \frac{-2}{4} \\ x &\geq -\frac{1}{2} \end{aligned}$$

$$P \wedge Q \left\{ -\frac{1}{2} \leq x \leq 3 \right\}$$



H/W Pg 13 Q19 Pg 14 Q20.