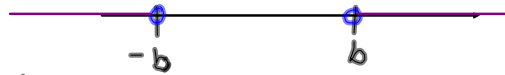


ITSEISARVODEPÄYHTÄLÖT

$$|a| < b \Leftrightarrow -b < a < b$$



$$|a| > b \Leftrightarrow a > b \text{ tai } a < -b$$



esim 1 $|1-x| < 4$

1 tapa $-4 < 1-x < 4$

$$\begin{array}{l} -4 < 1-x \quad | \cdot (-1) \\ -5 < -x \quad | \cdot (-1) \\ x < 5 \end{array} \quad \text{ja} \quad \begin{array}{l} 1-x < 4 \\ 1-4 < x \\ x > -3 \end{array}$$



V: $-3 < x < 5$

2 tapa $-4 < 1-x < 4 \quad | -1$

$$\begin{array}{l} -5 < -x < 3 \\ 5 > x > 3 \end{array} \quad | \cdot (-1)$$

V: $-3 < x < 5$

esim 2 $|3x-1| > 5$

1 tapa

$$\begin{array}{l} 3x-1 < -5 \quad \text{tai} \quad 3x-1 > 5 \\ 3x < -5+1 \quad \quad \quad 3x > 6 \\ 3x < -4 \quad | :3 \quad \quad \quad 3x > 6 \quad | :3 \\ x < -\frac{4}{3} \quad \quad \quad x > 2 \end{array}$$

V: $x < -\frac{4}{3} \quad \text{tai} \quad x > 2$

2 tapa $|3x-1| > 5 \quad | (\)^2 \quad | a|^2 = a^2$

$$(3x-1)^2 > 5^2$$

$$9x^2 - 6x + 1 > 25$$

$$9x^2 - 6x - 24 > 0 \quad | :3$$

$$3x^2 - 2x - 8 > 0$$

mek. cttä

$$3x^2 - 2x - 8 = 0$$

$$x = 2 \quad \text{tai} \quad x = -\frac{4}{3}$$

V: $x < -\frac{4}{3} \quad \text{tai} \quad x > 2$