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1.

$$|x+1| + 2x = 7$$

$$\rightarrow x+1 + 2x = 7$$

$$3x + 1 = 7$$

$$3x = 7 - 1 = 6$$

$$x = \frac{6}{3} = \underline{\underline{2}}$$

$$\rightarrow x+1 + 2x = -7$$

$$3x + 1 = -7$$

$$3x = -8$$

$$x = -\frac{8}{3} \underline{\underline{}}$$

$$\text{Hp: } \left(-\frac{8}{3}, 2\right)$$

2.

$$|3x+4| = x-8$$

$$\rightarrow 3x+4 = x-8$$

$$3x - x = -8 - 4$$

$$2x = -12$$

$$x = \frac{-12}{2} = -6$$

$$\rightarrow -(3x+4) = x-8$$

$$-3x - 4 = x - 8$$

$$-3x - x = -8 + 4$$

$$-4x = -4$$

$$x = \frac{-4}{-4} = \underline{\underline{1}}$$

$$\text{Hp: } (-6, 1)$$

3.

$$|x+3| \leq |2x-3|$$

$$\rightarrow |x+3| - |2x-3| \leq 0$$

$$x - 3 - (2x - 3) \leq 0$$

$$x + 3 - 2x - 3 \leq 0$$

$$-x + 6 \leq 0$$

$$-x \leq -6$$

$$x \geq 6$$

$$-)(x+3) - (2x-3) \leq 0$$

$$-x-3 - (2x-3) \leq 0$$

$$-x-3-2x-3$$

$$-3x \leq 0$$

$$x \geq 0$$

$$Hp = (0, 6)$$

$$4. |3x+1| - |2x+4| > 10$$

$$-)(3x+1) - 10 > 2x+4$$

$$3x-9 > 2x+4$$

$$3x-2x > 4+9$$

$$x > 13$$

$$-)(-(3x+1) - 10 > -(2x+4)$$

$$-3x-1-10 > -2x-4$$

$$-3x-11 > -2x-4$$

$$-3x+2x > -4+11$$

$$-x > 7$$

$$x < -7$$

$$Hp = x > 13 \text{ atau } x < -7$$

$$5. |x^2+x-1| \leq 1$$

$$|x^2+x-1|^2 \leq (1)^2$$

$$(x^2+x-1)^2 - (1)^2 \leq 0 \rightarrow \text{diubah ke bentuk } a^2-b^2 = (a-b)(a+b)$$

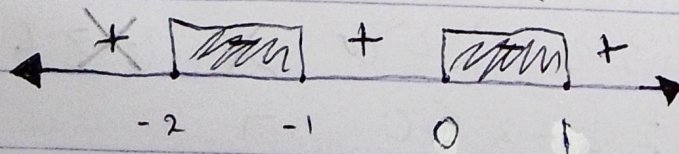
$$(x^2+x-1) - (x^2+x-1-1) \leq 0$$

$$(x^2+x) (x^2+x-2) \leq 0 \rightarrow \text{faktorkan}$$

$$(x+0)(x+1)(x-1)(x+2)$$

$$(x+0)=0 \quad (x+1)=0 \quad (x-1)=0 \quad (x+2)=0$$

$$x=0 \quad x=-1 \quad x=1 \quad x=-2$$



$$Hp = -2 \leq x \leq -1 \text{ dan } 0 \leq x \leq 1$$