

ESEMP. SUI SISTEMI DI DISQUAZIONI

ES1

$$\begin{cases} x+2 \leq 3 \\ 6-x > 0 \end{cases}$$

1° DISEQ.

$$x+2 \leq 3$$

$$x \leq 3-2$$

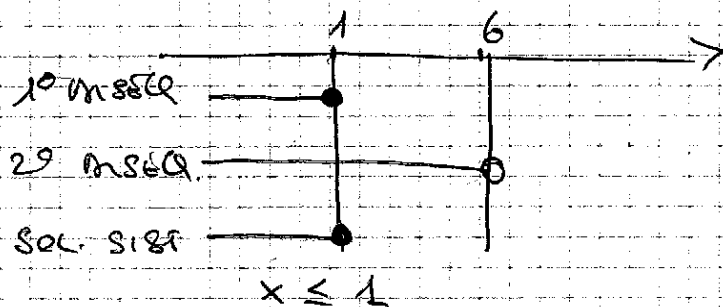
$$x \leq 1$$

2° DISEQ.

$$6-x > 0$$

$$-x > -6$$

$$x < 6$$



ES2

$$\begin{cases} 6x-3 > 0 \\ 2x^2-9x+4 \leq 0 \end{cases}$$

1° DISEQ.

$$6x-3 > 0$$

$$\frac{6x}{6} > \frac{3}{6}$$

$$x > \frac{1}{2}$$

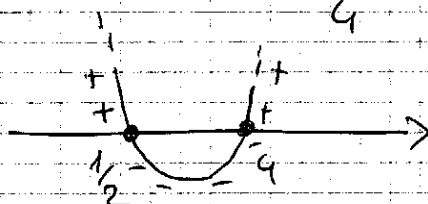
2° DISEQ.

$$2x^2-9x+4 \leq 0$$

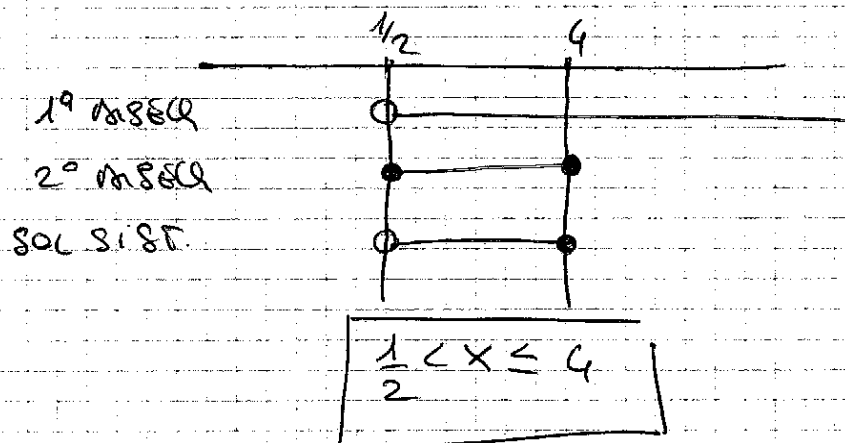
$$2x^2-9x+4=0$$

$$\Delta = 81 - 4 \cdot 2 \cdot 4 = 81 - 32 = 49$$

$$x_{1,2} = \frac{9 \pm \sqrt{49}}{4} = \begin{cases} \frac{9-7}{4} = \frac{2}{4} = \frac{1}{2} \\ \frac{9+7}{4} = \frac{16}{4} = 4 \end{cases}$$



$$\frac{1}{2} \leq x \leq 4$$



ES 3

$$\begin{cases} 2x - 8 > 0 \\ \frac{x-1}{x-3} \geq 0 \end{cases}$$

1ª desigualdade

$$2x - 8 > 0$$

$$\frac{2x}{2} > \frac{8}{2}$$

$$\boxed{x > 4}$$

2ª desigualdade

$$\frac{x-1}{x-3} \geq 0$$

$$N \geq 0$$

$$x - 1 \geq 0$$

$$x \geq 1$$

$$D > 0$$

$$x - 3 > 0$$

$$x > 3$$

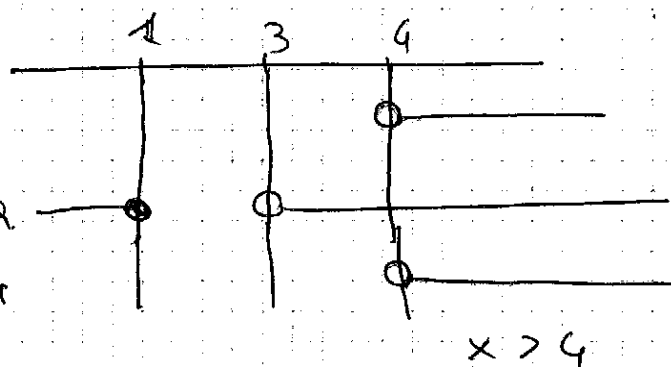
		1		3	
N	-	•	+		+
D	-		-	•	+
N/D	+	•	-	•	+

$$\boxed{x \leq 1 \vee x > 3}$$

1ª desigualdade

2ª desigualdade

SOLUÇÃO



ES 4

$$\begin{cases} 3x^2 - 4x + 5 < 0 \\ \frac{x}{2x+3} \geq 0 \end{cases}$$

1ª desigualdade

$$3x^2 - 4x + 5 < 0$$

$$\Delta = 16 - 4 \cdot 3 \cdot 5 = 16 - 60 = -44$$

$$\Delta = 16 - 4 \cdot 3 \cdot 5 = 16 - 60 = -44$$

DISC. NÃO VERIFICADA
 $\emptyset$

2ª desigualdade

$$\frac{x}{2x+3} \geq 0$$

$$N \geq 0$$

$$x \geq 0$$

$$D > 0$$

$$2x + 3 > 0$$

$$\frac{2x}{2} > \frac{-3}{2}$$

$$x > -\frac{3}{2}$$

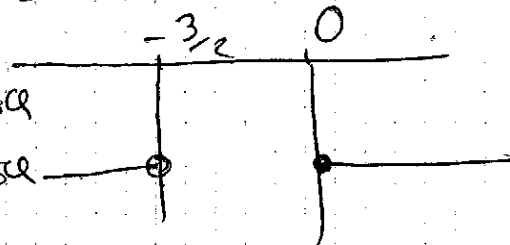
		-3/2		0	
N	-		-	•	+
D	-	•	+		+
N/D	+	•	-	•	+

$$x < -\frac{3}{2} \vee x \geq 0$$

1ª desigualdade

2ª desigualdade

SIST.



SISTEMA IMPOSSÍVEL.