

$$\begin{cases} \frac{3x}{2x-x^2} \geq 0 \\ \frac{1}{x^2} \geq 0 \\ \frac{1}{2x-1} \leq \frac{1}{4x^2-4x+1} \end{cases} \Rightarrow x < 0 \vee 0 < x < 2$$

1ª Disegua.

$$\frac{3x}{2x-x^2} \geq 0$$

$$\begin{aligned} 2x-x^2 &= 0 \\ x(2-x) &= 0 \\ x=0 \vee x=2 \end{aligned}$$

$x=0$

	0		2
$\neq 3x$	-	+	+
$\neq 2x-x^2$	-	+	-
	+	+	-

$$]-\infty; 0[\cup]0; 2[$$

$$x < 0 \vee 0 < x < 2$$

2ª Disegua

$$\begin{aligned} \frac{1}{x^2} &\geq 1 \\ \frac{1}{x^2} - 1 &\geq 0 \\ \frac{1-x^2}{x^2} &\geq 0 \\ (1+x)(1-x) &\geq 0 \end{aligned}$$

$$\begin{aligned} x &= 0 \\ x &= 1 \\ x &= -1 \end{aligned}$$

	-1		0		1
x^2	+	+	+	+	+
$1+x$	-	0	+	+	+
$1-x$	+	+	+	0	-
	-	+	+	-	-

$$-1 \leq x < 0 \vee 0 < x \leq 1$$

$$[-1; 0[\cup]0; 1]$$

3ª Dis

$$\frac{1}{2x-1} \leq \frac{1}{4x^2-4x+1}$$

$$\frac{1}{2x-1} - \frac{1}{4x^2-4x+1} \leq 0$$

$$\frac{2x-1-1}{(2x-1)^2} \leq 0$$

$$\frac{2x-2}{(2x-1)^2} \leq 0$$

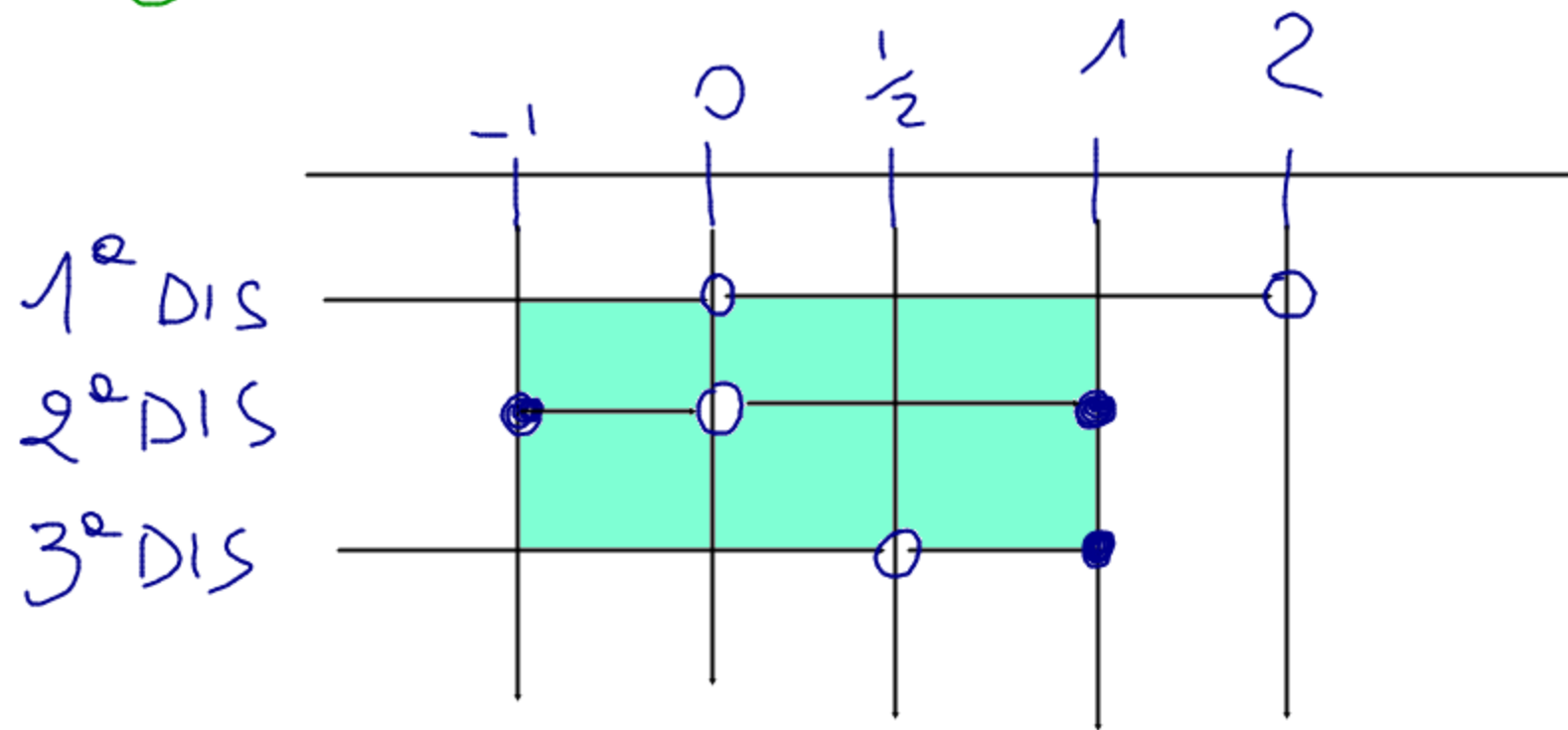
$\frac{N}{D}$

	$\frac{1}{2}$		1
-	-	0	+
+	+	+	+
-	-	+	+

$$x < \frac{1}{2} \vee \frac{1}{2} < x \leq 1$$

Ora mettiamo a sistema le soluzioni.

$$\begin{cases} x < 0 \vee 0 < x < 2 \\ -1 \leq x < 0 \vee 0 < x \leq 1 \\ x < \frac{1}{2} \vee \frac{1}{2} < x \leq 1 \end{cases}$$



SOLUZIONE del sistema

$$-1 \leq x < 0 \vee 0 < x < \frac{1}{2} \vee \frac{1}{2} < x \leq 1$$

$$[-1; 0[\cup]0; \frac{1}{2}[\cup]\frac{1}{2}; 1]$$