

SISTEMI DI DISEQUAZIONI

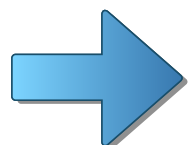
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TROVARE LE SOLUZIONI CHE
VERIFICANO

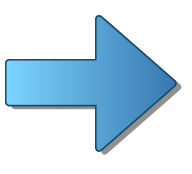
CONTEMPORANEAMENTE

TUTTE LE DISEQUAZIONI CHE
COMPONGONO IL SISTEMA

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RISOLVERE SEPARATAMENTE LE VARIE DISEQUAZIONI



TROVARE LE SOLUZIONI DEL SISTEMA
MEDIANTE IL GRAFICO A LINEE CONTINUE

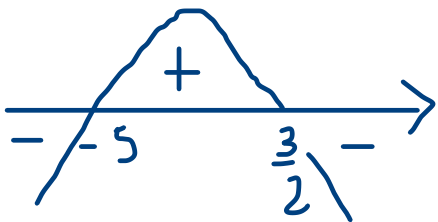
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$$\begin{cases} \textcircled{A} & 15 - 2x^2 - 7x > 0 \\ \textcircled{B} & x + 4 \leq 0 \end{cases}$$

$$\textcircled{A} \quad -2x^2 - 7x + 15 > 0$$

$$\Delta = 49 + 120 = 169 \rightarrow 13$$

$$x_{1,2} = \frac{7 \pm 13}{-4} = \begin{cases} -5 \\ \frac{6}{4} = \frac{3}{2} \end{cases}$$

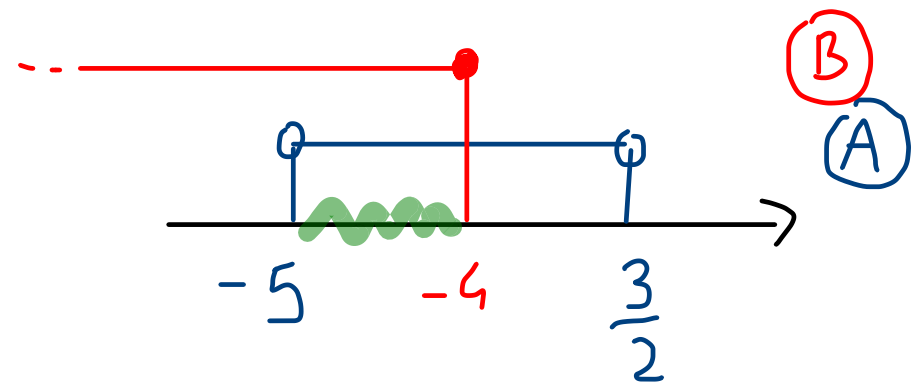


$$\boxed{-5 < x < \frac{3}{2}}$$

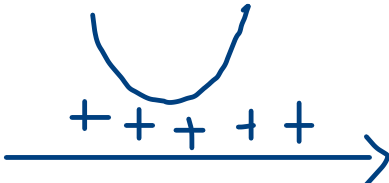
$$-5 < x \leq -4 \quad]-5; -4]$$

$$\textcircled{B} \quad x + 4 \leq 0$$

$$\boxed{x \leq -4}$$

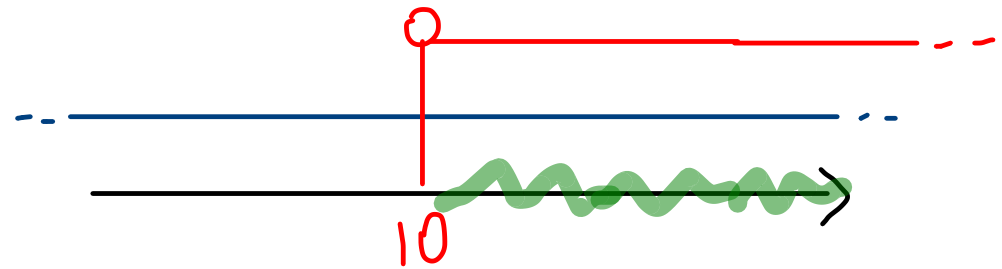


$$\begin{array}{l} \textcircled{A} \begin{cases} x^2 + 16 > 0 \end{cases} \\ \textcircled{B} \begin{cases} 10 - x < 0 \end{cases} \end{array}$$

$\textcircled{A} \quad x^2 + 16 > 0$
 $x^2 = -16 \quad \Delta < 0$

 $\mathbb{R}$

$$\boxed{x > 10} \quad] 10, +\infty [$$

$\textcircled{B} \quad 10 - x < 0$
 $-x < -10$
 $x > 10$



$$\textcircled{A} \begin{cases} \frac{1}{2}(x+8) - \frac{5}{2} \leq 3(1 - \frac{x}{2}) \end{cases}$$

$$\textcircled{B} \begin{cases} x(2x-1) > 1 \end{cases}$$

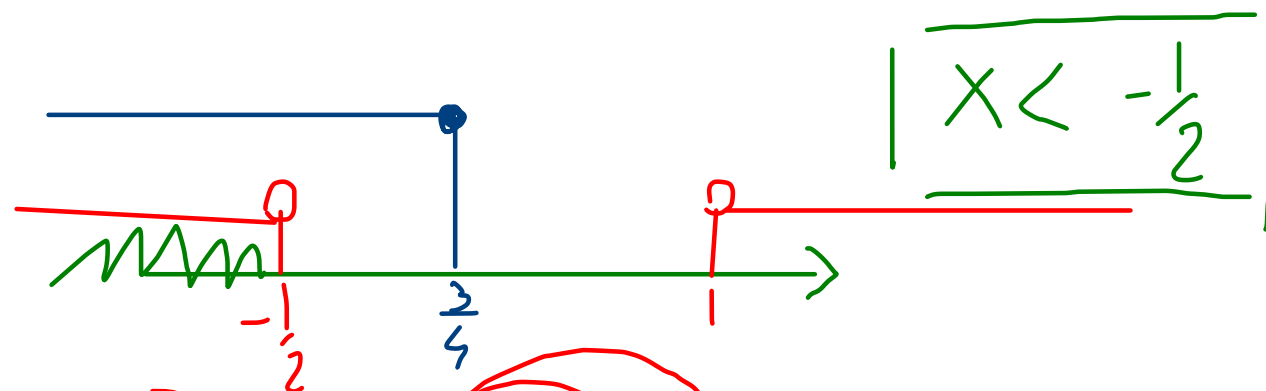
$$\textcircled{A} \quad \frac{1}{2}x + 4 - \frac{5}{2} \leq 3 - \frac{3}{2}x$$

$$\frac{x+8-5}{2} \leq \frac{6-3x}{2}$$

$$x+3x \leq 6+5-8$$

$$\frac{4x}{4} \leq \frac{3}{4}$$

$$\boxed{x \leq \frac{3}{4}}$$



$$\textcircled{B} \quad x(2x-1) > 1$$

$$2x^2 - x - 1 > 0$$

$$\Delta = 1 + 8 = 9$$

$$x_{1,2} = \frac{1 \pm 3}{4} = \begin{cases} 1 \\ -\frac{1}{2} \end{cases}$$

