

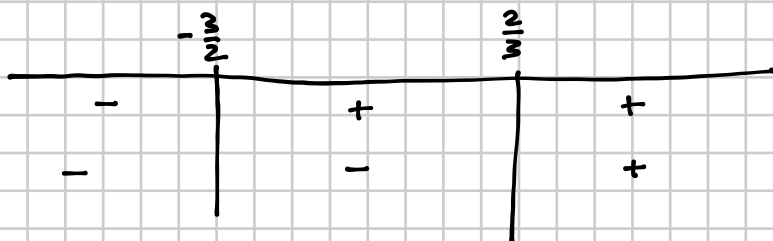
653

$$|2x + 3| - |3x - 2| < 4$$

$$\left[x < \frac{3}{5} \vee x > 1 \right]$$

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

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



$$\begin{cases} x \leq -\frac{3}{2} \\ -(2x+3) + (3x-2) < 4 \end{cases} \vee \begin{cases} -\frac{3}{2} < x < \frac{2}{3} \\ 2x+3 + (3x-2) < 4 \end{cases} \vee \begin{cases} x > \frac{2}{3} \\ 2x+3 - (3x-2) < 4 \end{cases}$$

$$\begin{cases} x \leq -\frac{3}{2} \\ -2x-3+3x-2 < 4 \end{cases} \vee \begin{cases} -\frac{3}{2} < x < \frac{2}{3} \\ 2x+3+3x-2 < 4 \end{cases} \vee \begin{cases} x > \frac{2}{3} \\ 2x+3-3x+2 < 4 \end{cases}$$

$$\begin{cases} x \leq -\frac{3}{2} \\ x < 9 \end{cases} \vee \begin{cases} -\frac{3}{2} < x < \frac{2}{3} \\ 5x < 3 \Rightarrow x < \frac{3}{5} \end{cases} \vee \begin{cases} x > \frac{2}{3} \\ -x < -1 \Rightarrow x > 1 \end{cases}$$

$$\Downarrow$$

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

$$\vee$$

$$\Downarrow$$

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

$$\vee$$

$$\Downarrow$$

$$x > 1$$

$$\boxed{x < \frac{3}{5} \vee x > 1}$$

887

$$\begin{cases} \textcircled{1} \sqrt{3x-4} \leq x+1 \\ \textcircled{2} \sqrt{x^2+x-6} \leq x-2 \end{cases}$$

$$[x=2]$$

$$\textcircled{1} \sqrt{3x-4} \leq x+1$$

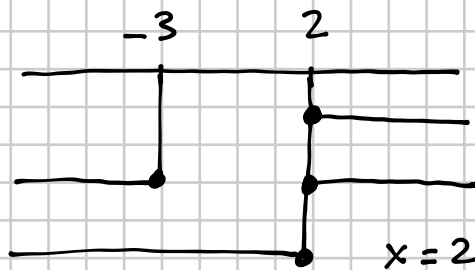
$$\begin{cases} x+1 \geq 0 \\ 3x-4 \geq 0 \\ 3x-4 \leq x^2+2x+1 \end{cases} \begin{cases} x \geq -1 \\ x \geq \frac{4}{3} \\ x^2-x+5 \geq 0 \end{cases} \begin{cases} x \geq -1 \\ x \geq \frac{4}{3} \\ \forall x \end{cases} \Rightarrow x \geq \frac{4}{3}$$

$\downarrow \Delta < 0$

$$\textcircled{2} \sqrt{x^2+x-6} \leq x-2$$

$$\begin{cases} x-2 \geq 0 \\ x^2+x-6 \geq 0 \\ \cancel{x^2+x-6 \leq x^2+4-4x} \end{cases} \begin{cases} x \geq 2 \\ (x+3)(x-2) \geq 0 \\ 5x \leq 10 \end{cases} \begin{cases} x \geq 2 \\ x \leq -3 \vee x \geq 2 \\ x \leq 2 \end{cases}$$

$$\boxed{x=2}$$



$$\begin{cases} \textcircled{1} x \geq \frac{4}{3} \\ \textcircled{2} x = 2 \end{cases} \Rightarrow \boxed{x=2}$$