

Soluciones de funciones valor absoluto

Ejercicio 1 resuelto

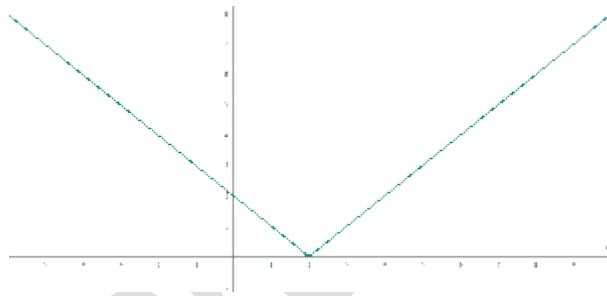
Representa la función valor absoluto:

$$f(x) = |x - 2|$$

$$x - 2 = 0$$

$$x = 2$$

$$f(x) = \begin{cases} -(x-2) & \text{si } x < 2 \\ x-2 & \text{si } x \geq 2 \end{cases}$$



Ejercicio 2 resuelto

Representa las función valor absoluto e indica sudominio.

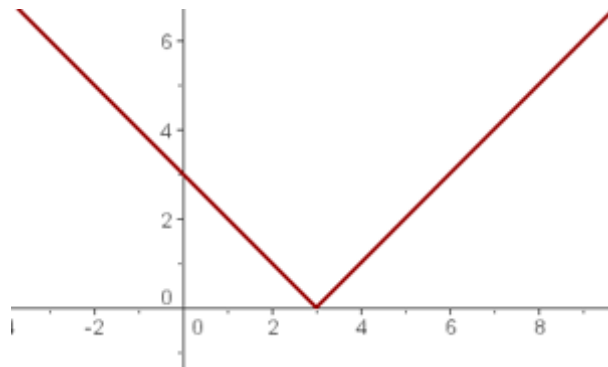
$$f(x) = |x - 3|$$

$$x - 3 = 0$$

$$x = 3$$



$$f(x) = \begin{cases} -(x-3) & \text{si } x < 3 \\ x-3 & \text{si } x \geq 3 \end{cases}$$



$$D = \mathbb{R}$$

Ejercicio 3 resuelto

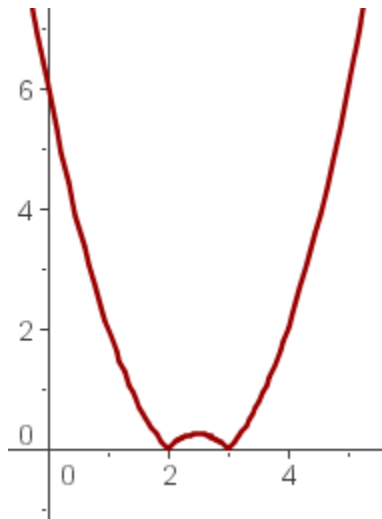
Representa la función valor absoluto e indica sudominio:

$$f(x) = |x^2 - 5x + 6|$$

$$x^2 - 5x + 6 = 0 \quad x = 2 \quad x = 3$$



$$f(x) = \begin{cases} x^2 - 5x + 6 & \text{si } x < 2 \\ -(x^2 - 5x + 6) & \text{si } 2 \leq x < 3 \\ x^2 - 5x + 6 & \text{si } x \geq 3 \end{cases}$$



$$D = \mathbb{R}$$

Ejercicio 4 resuelto

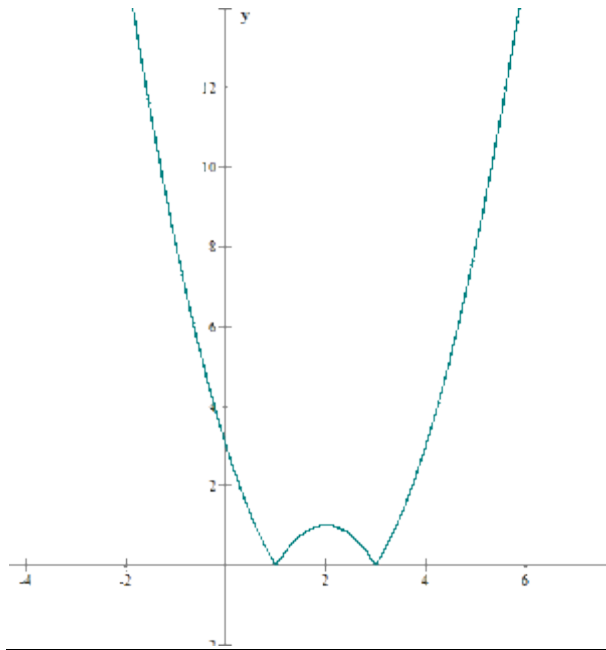
Representa la función valor absoluto:

$$f(x) = |x^2 - 4x + 3|$$

$$x^2 - 4x + 3 = 0 \quad x = 1 \quad x = 3$$



$$f(x) = \begin{cases} x^2 - 4x + 3 & \text{si } x < 1 \\ -(x^2 - 4x + 3) & \text{si } 1 \leq x < 3 \\ x^2 - 4x + 3 & \text{si } x \geq 3 \end{cases}$$



Ejercicio 5 resuelto

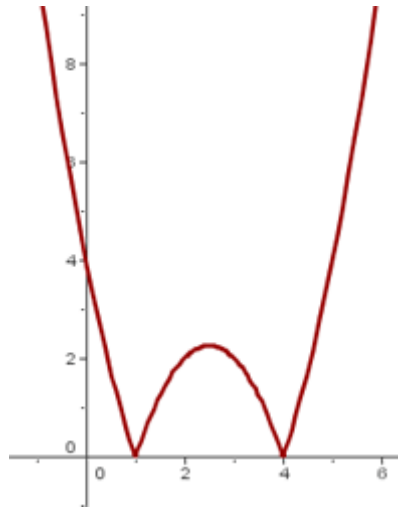
Representa la función valor absoluto:

$$1 \quad f(x) = |-x^2 + 5x - 4|$$

$$-x^2 + 5x - 4 = 0 \quad x^2 - 5x + 4 = 0 \quad x = 1 \quad x = 4$$



$$f(x) = \begin{cases} x^2 - 5x + 4 & \text{si } x < 1 \\ -(x^2 - 5x + 4) & \text{si } 1 \leq x < 4 \\ x^2 - 5x + 4 & \text{si } x \geq 4 \end{cases}$$



Ejercicio 6 resuelto

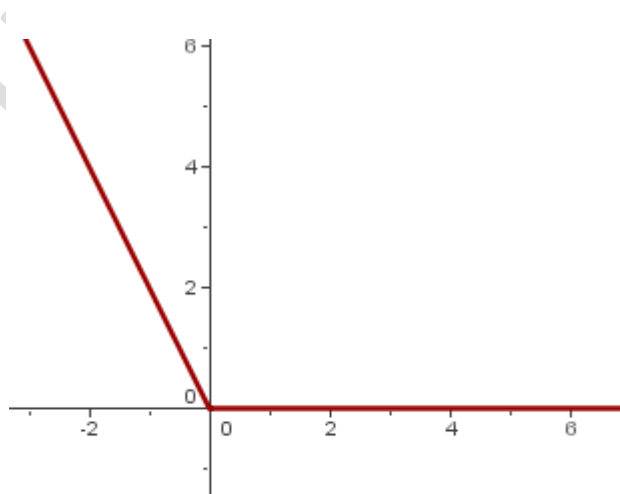
Representa la función valor absoluto:

$$f(x) = |x| - x$$

$$x = 0$$

$$f(x) = \begin{cases} -x - x & \text{si } x < 0 \\ x - x & \text{si } x \geq 0 \end{cases}$$

$$f(x) = \begin{cases} -2x & \text{si } x < 0 \\ 0 & \text{si } x \geq 0 \end{cases}$$



Ejercicio 7 resuelto

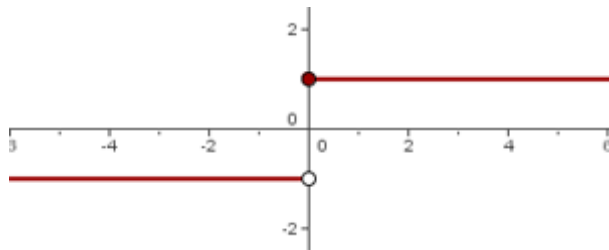
Representa la función valor absoluto:

$$f(x) = |x| / x$$

$$x \neq 0$$

$$f(x) = \begin{cases} \frac{-x}{x} & \text{si } x < 0 \\ \frac{x}{x} & \text{si } x \geq 0 \end{cases}$$

$$f(x) = \begin{cases} -1 & \text{si } x < 0 \\ 1 & \text{si } x \geq 0 \end{cases}$$



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