

Уравнения с модулем

$$|f(x)| = |g(x)|$$

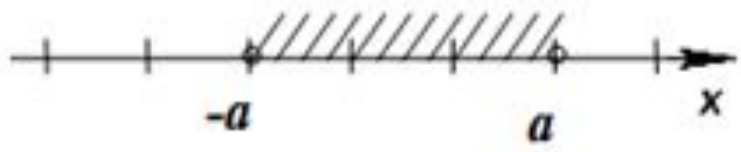

$$|f(x)| = g(x)$$

Решите уравнение:

$$|x - 4| = |5x|.$$

$$|x^2 + 7x| = 4x + 10.$$

Неравенства с модулем

$ x < a$	$ x > a$
$-a < x < a$	$x > a$ и $x < -a$
 A number line with an arrow pointing right, labeled 'x'. Two points are marked: '-a' on the left and 'a' on the right. The region between -a and a is shaded with diagonal lines, representing the solution set for the inequality.	 A number line with an arrow pointing right, labeled 'x'. Two points are marked: '-a' on the left and 'a' on the right. The regions to the left of -a and to the right of a are shaded with diagonal lines, representing the solution set for the inequality.
$\begin{cases} x < a \\ x > -a \end{cases}$	$\begin{cases} x > a \\ x < -a \end{cases}$

Решить неравенства:

а) $|x - 2| < 3$;

б) $|5 - 3x| \geq 6$.

Неравенства с модулем

$$|f(x)| < g(x) \Leftrightarrow \begin{cases} f(x) < g(x), \\ f(x) > -g(x). \end{cases}$$

$$|f(x)| > g(x) \Leftrightarrow \begin{cases} f(x) > g(x), \\ f(x) < -g(x). \end{cases}$$

в) $|x - 14| \leq 8 + 2x$;

г) $|-x^2 - x| \geq 4x - 2$.

Неравенства с модулем

$$|f(x)| < |g(x)|$$

$$f^2(x) < g^2(x)$$

$$(f(x) - g(x)) \cdot (f(x) + g(x)) < 0$$

$$|3 - x| > |2x + 1|$$

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Спасибо за урок!



Неравенства с модулем

$$1) |x^2 - 3| > 0$$

$$2) |x^2 - 3| < -2$$

$$3) |2x - 1| \leq 3$$

$$4) |1 + 3x| \geq x^2 + 3$$

$$5) |x^2 - 8x + 15| < x - 3$$