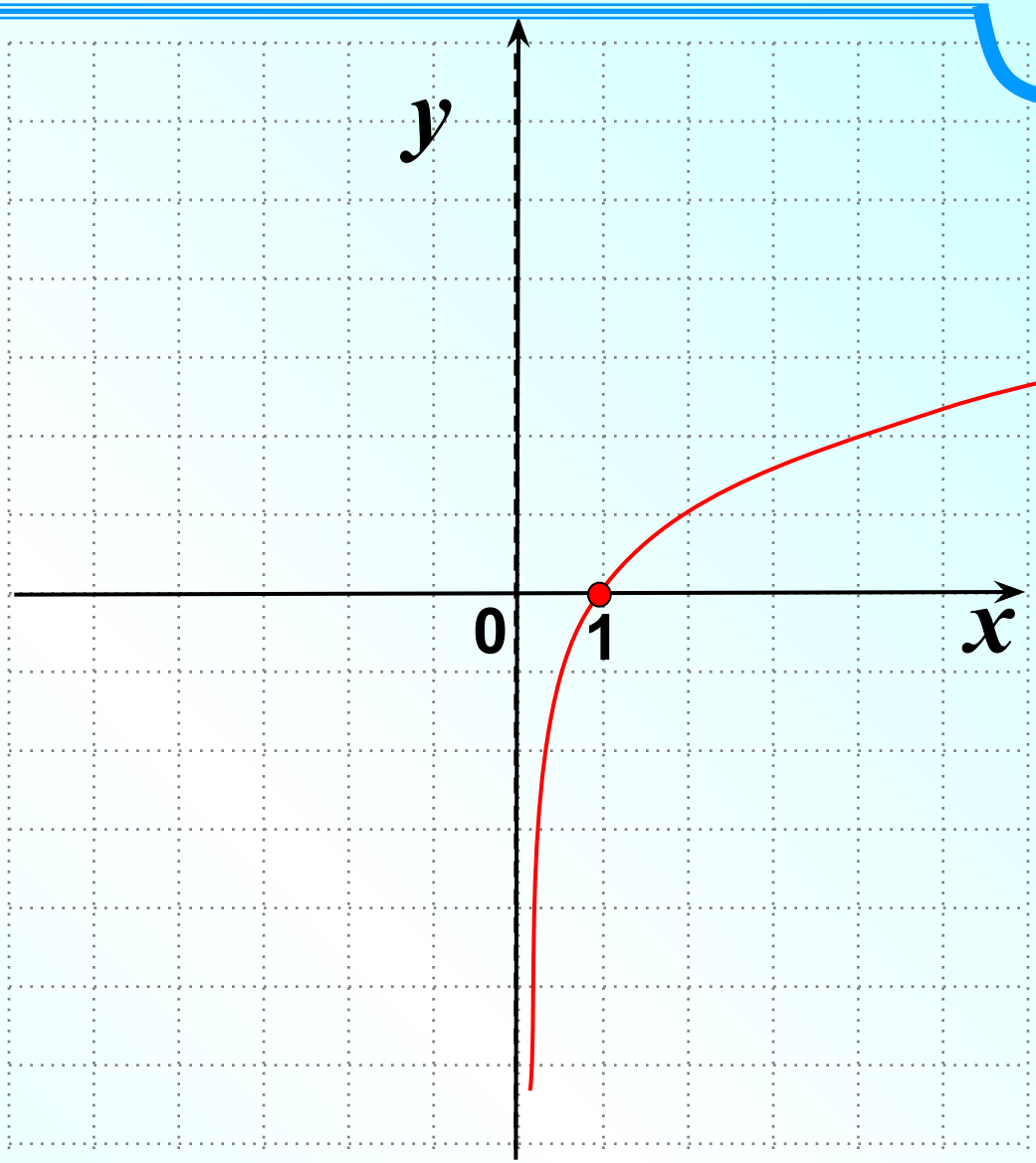
Логарифмическая функция

Преобразования графиков

$y = \log_2(x-2)$

$D(y): x > 2$

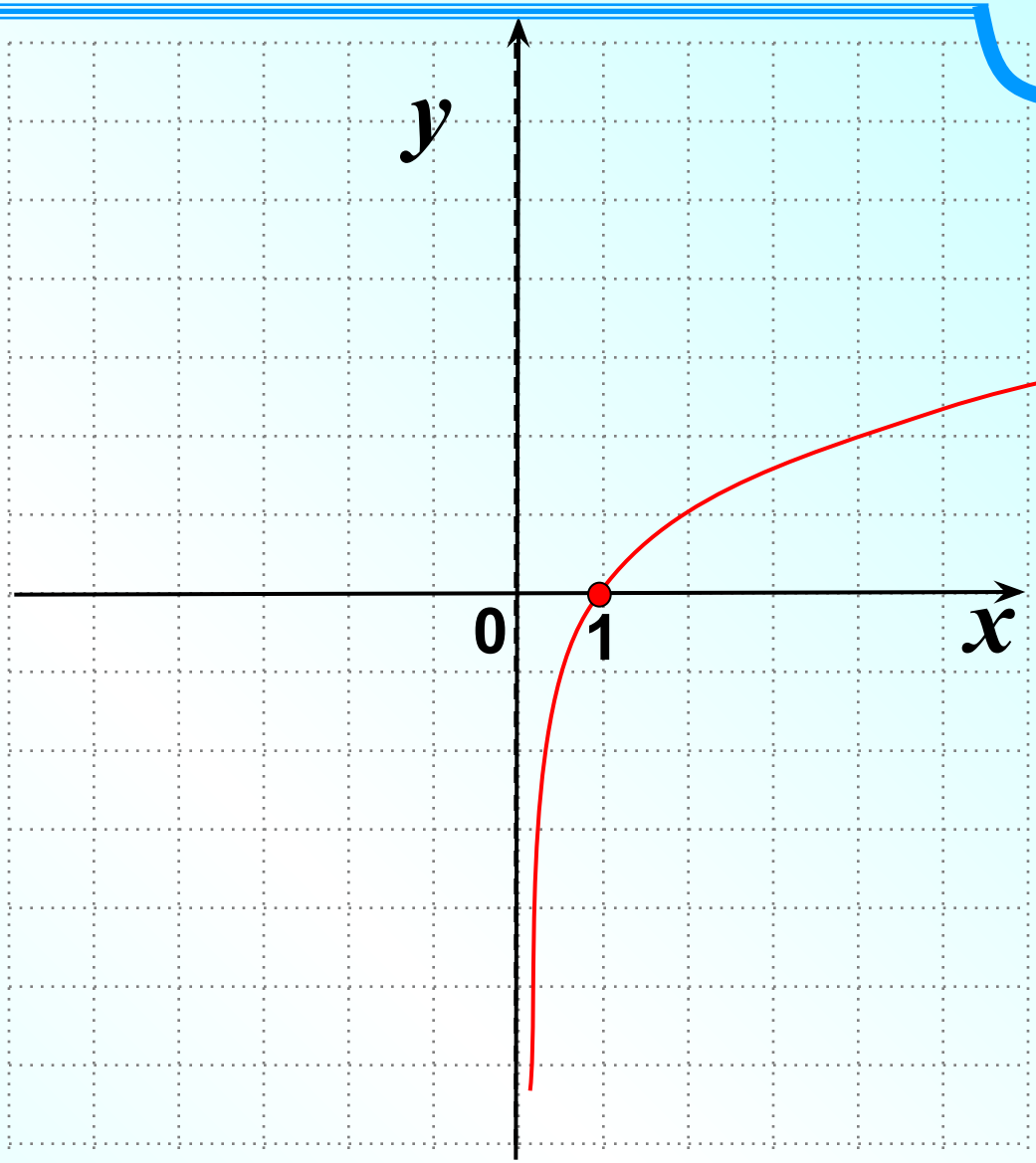
$E(y): y \in R$



$y = log_2(x+4)$

$D(y): x > -4$

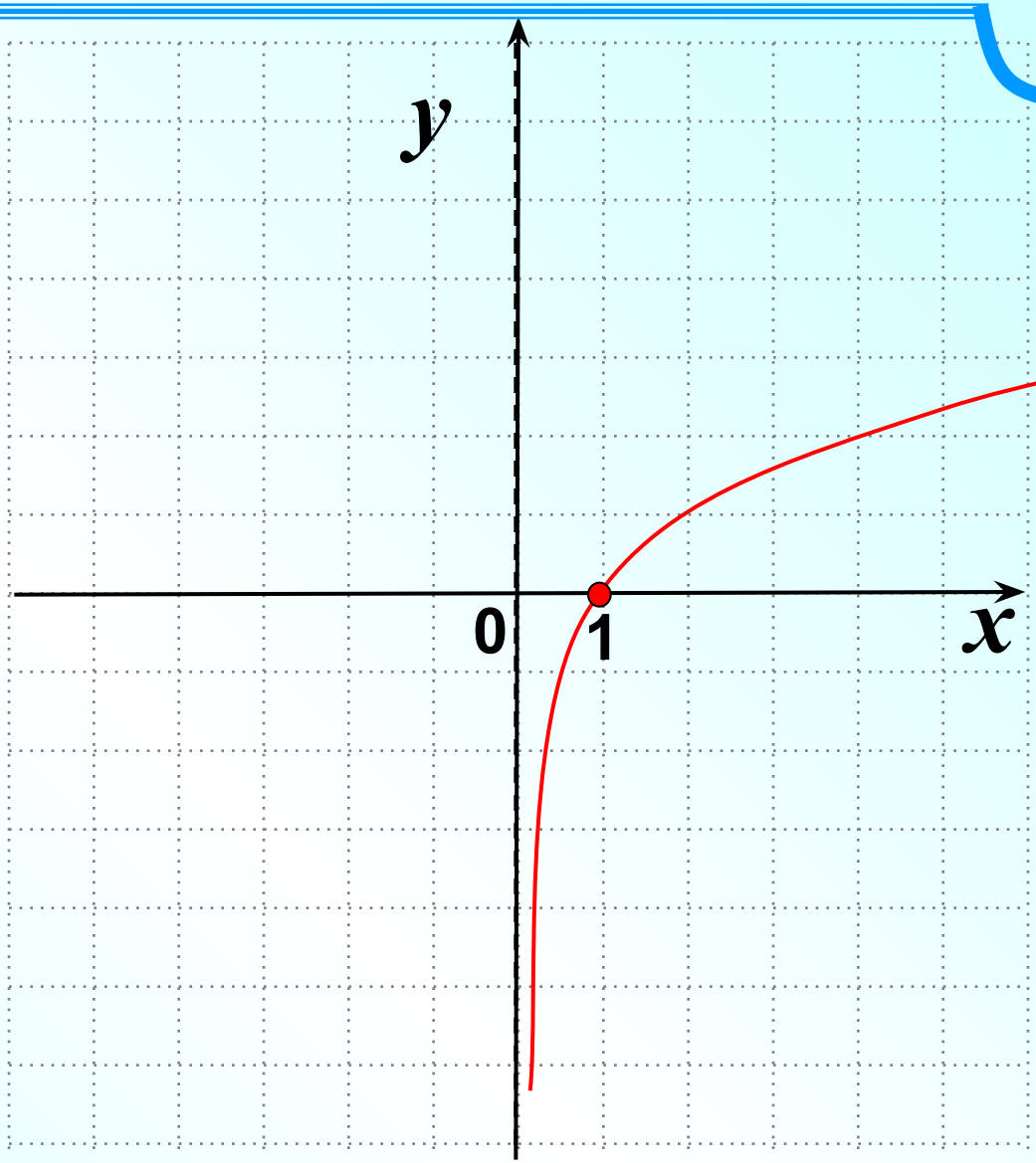
$E(y): y \in R$



$y = \log_2 x + 2$

$D(y): x > 0$

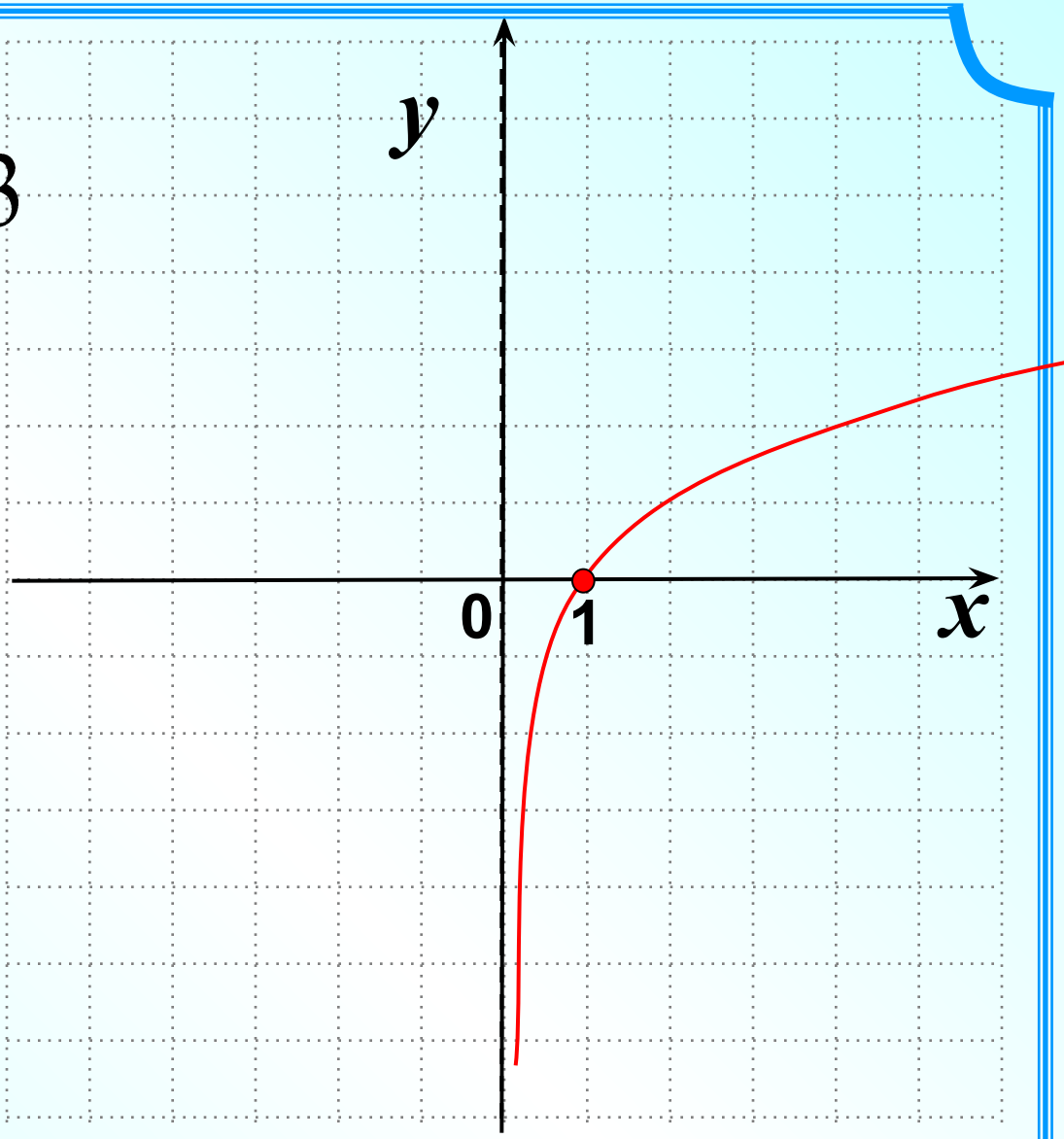
$E(y): y \in R$



$$y = \log_2(x+4) + 3$$

$$D(y): x > -4$$

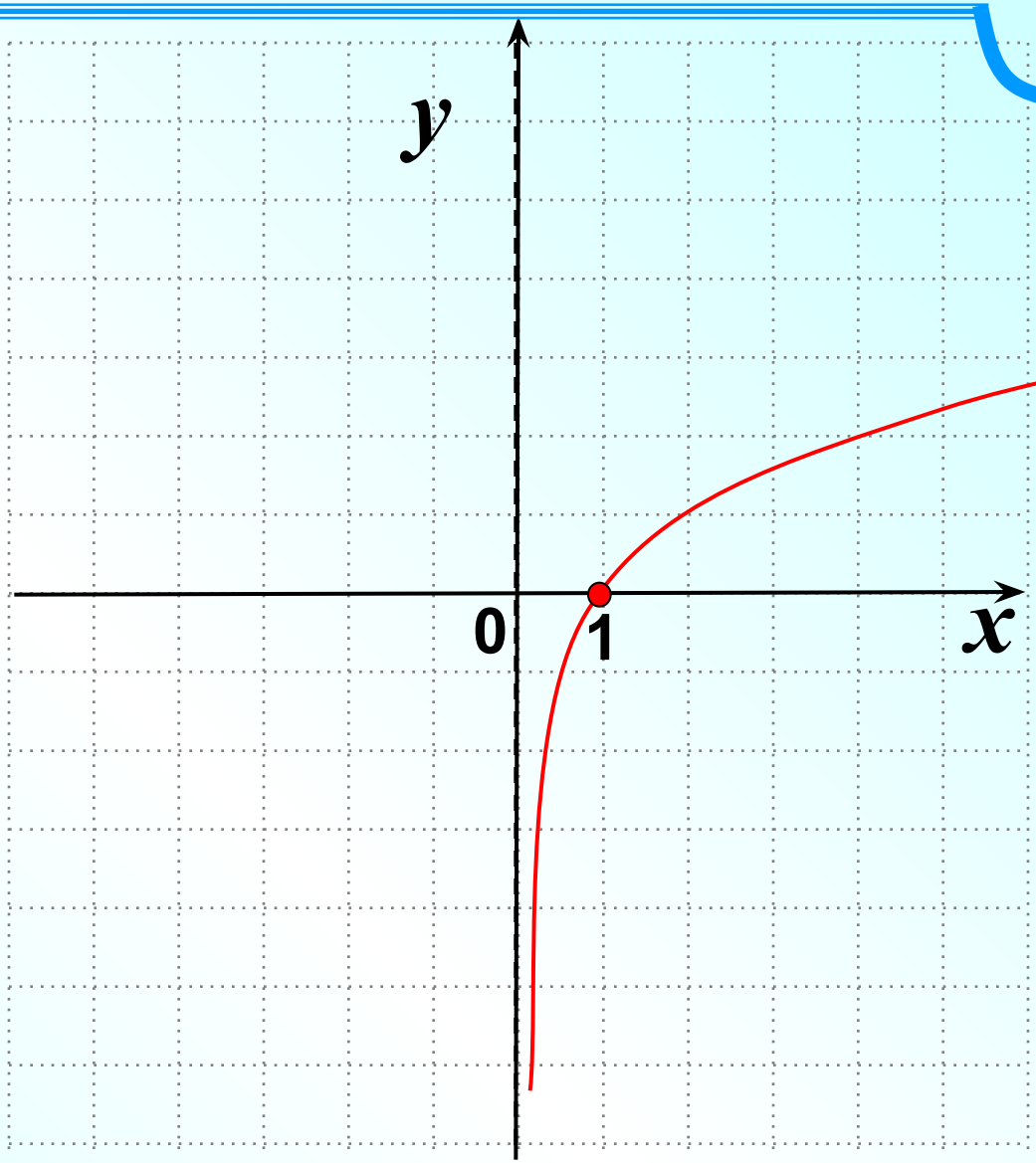
$$E(y): y \in R$$



$y = \log_2 x - 2$

$D(y): x > 0$

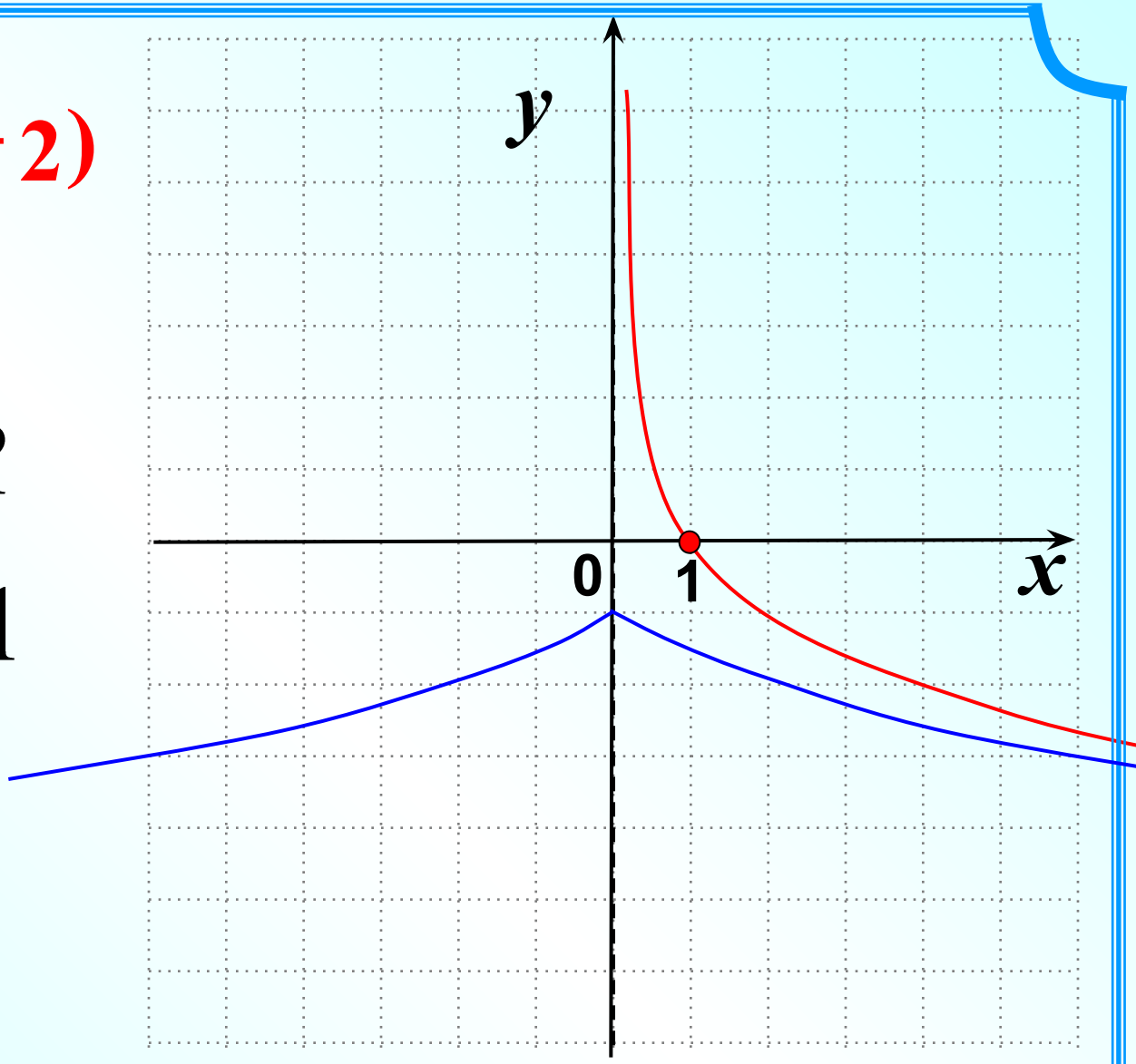
$E(y): y \in R$



$y = \log_{\frac{1}{2}}(|x|+2)$

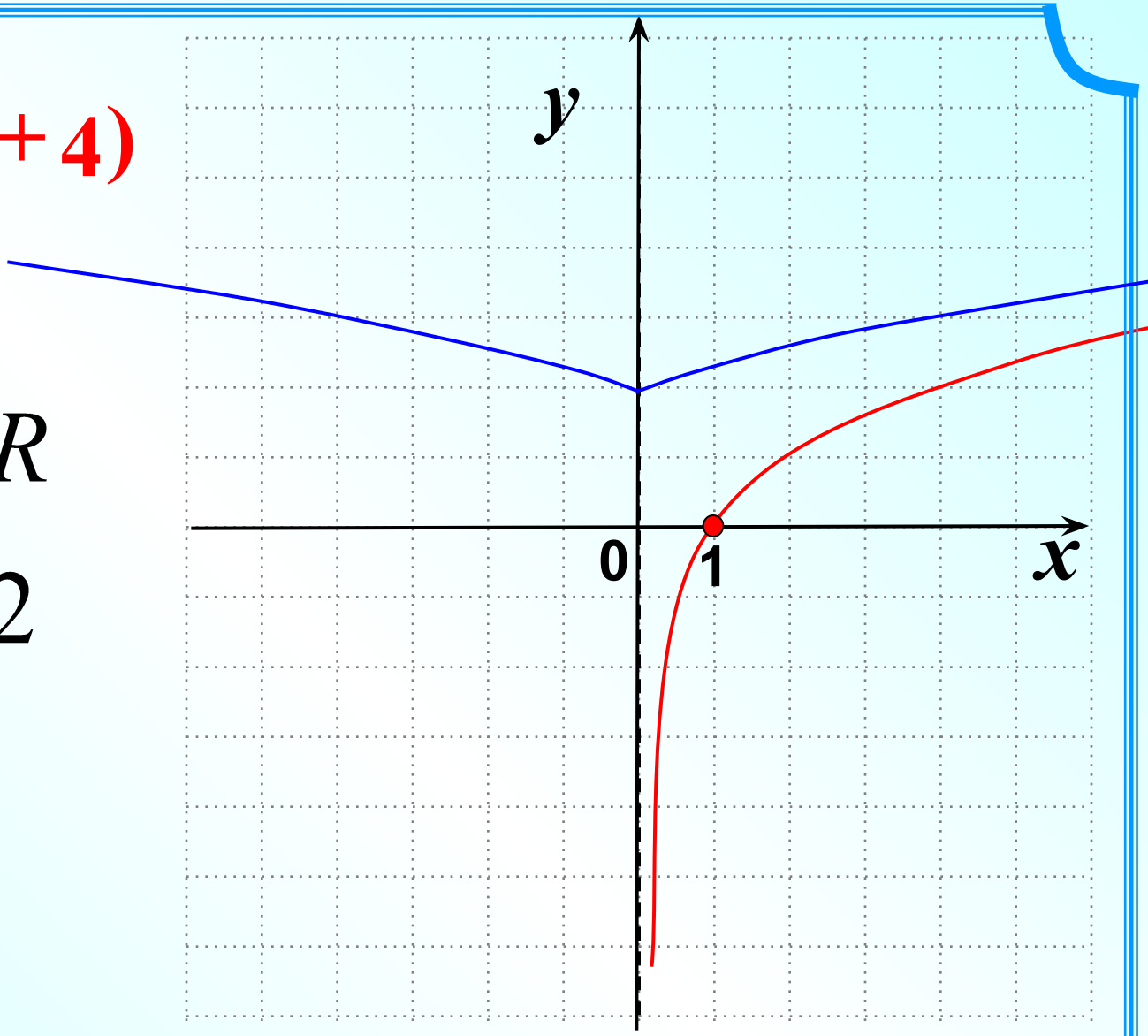
$D(y): x \in R$

$E(y): y \le -1$



$y = \log_{\frac{1}{2}}(|x|+2)$

$y = \log_2(|x| + 4)$

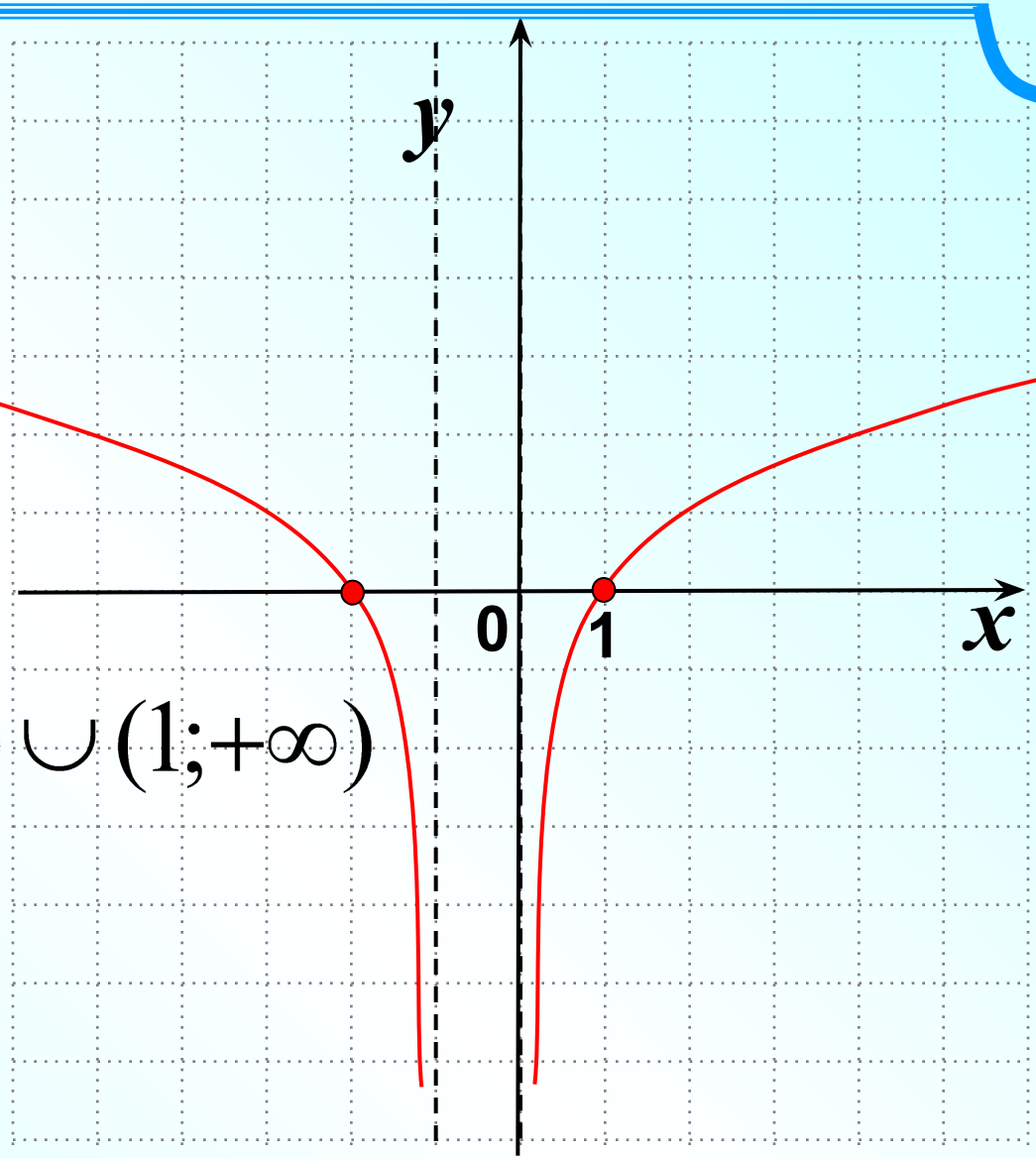


$D(y): x \in R$

$E(y): y \geq 2$

$y = \log_2(|x| + 4)$

$y = \log_2(|x| - 1)$



$D(y): x \in (-\infty;-1) \cup (1;+\infty)$

$E(y): y \in R$

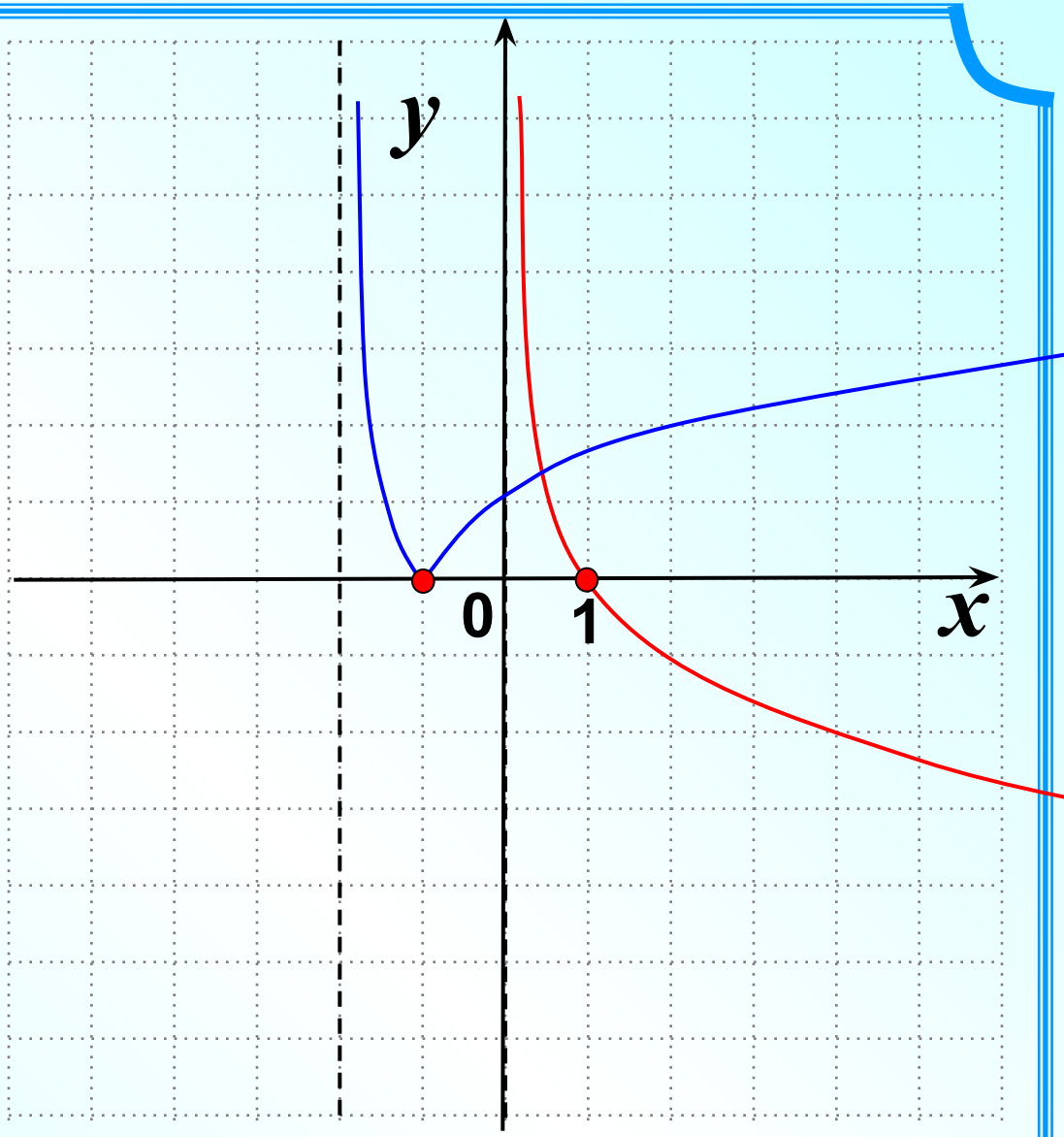
$y = \log_2(|x| - 1)$

Симметрия относительно оси ординат.

$$y = \left| \log_{\frac{1}{2}} (x+2) \right|$$

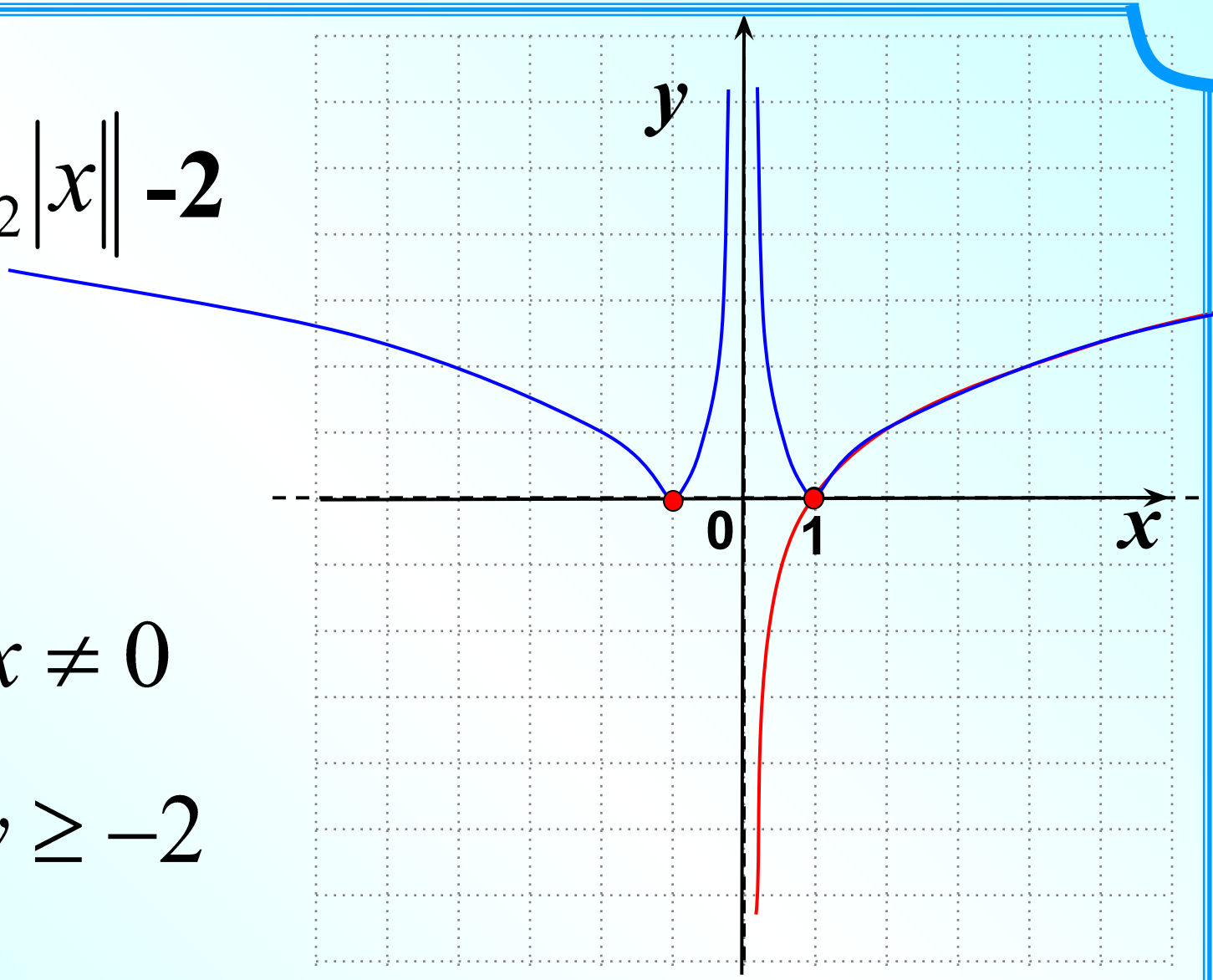
$$D(y): x > -2$$

$$E(y): y \geq 0$$



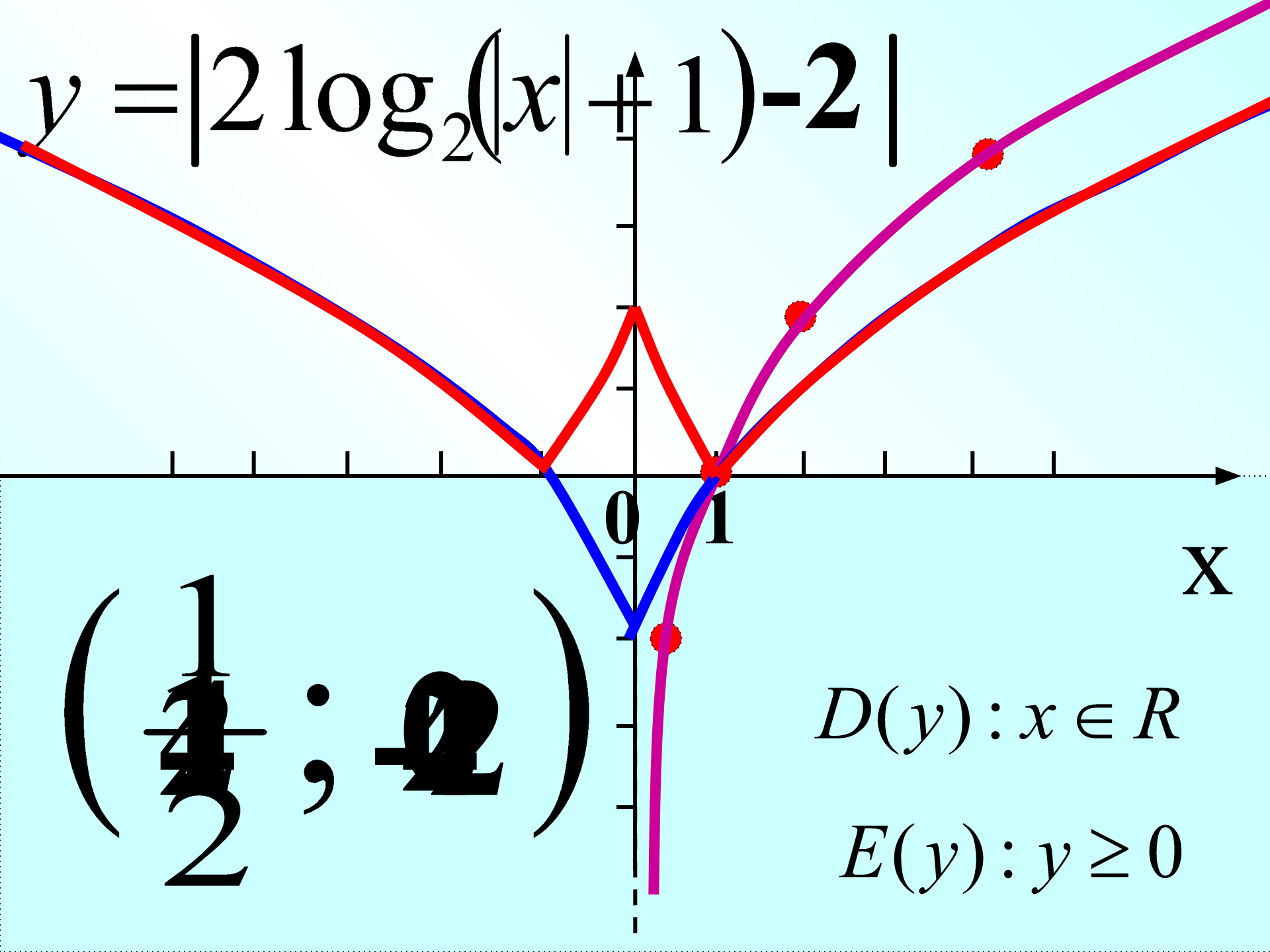
Симметрия относительно оси абсцисс.

$$y = \left|\log_2 |x|\right| - 2$$



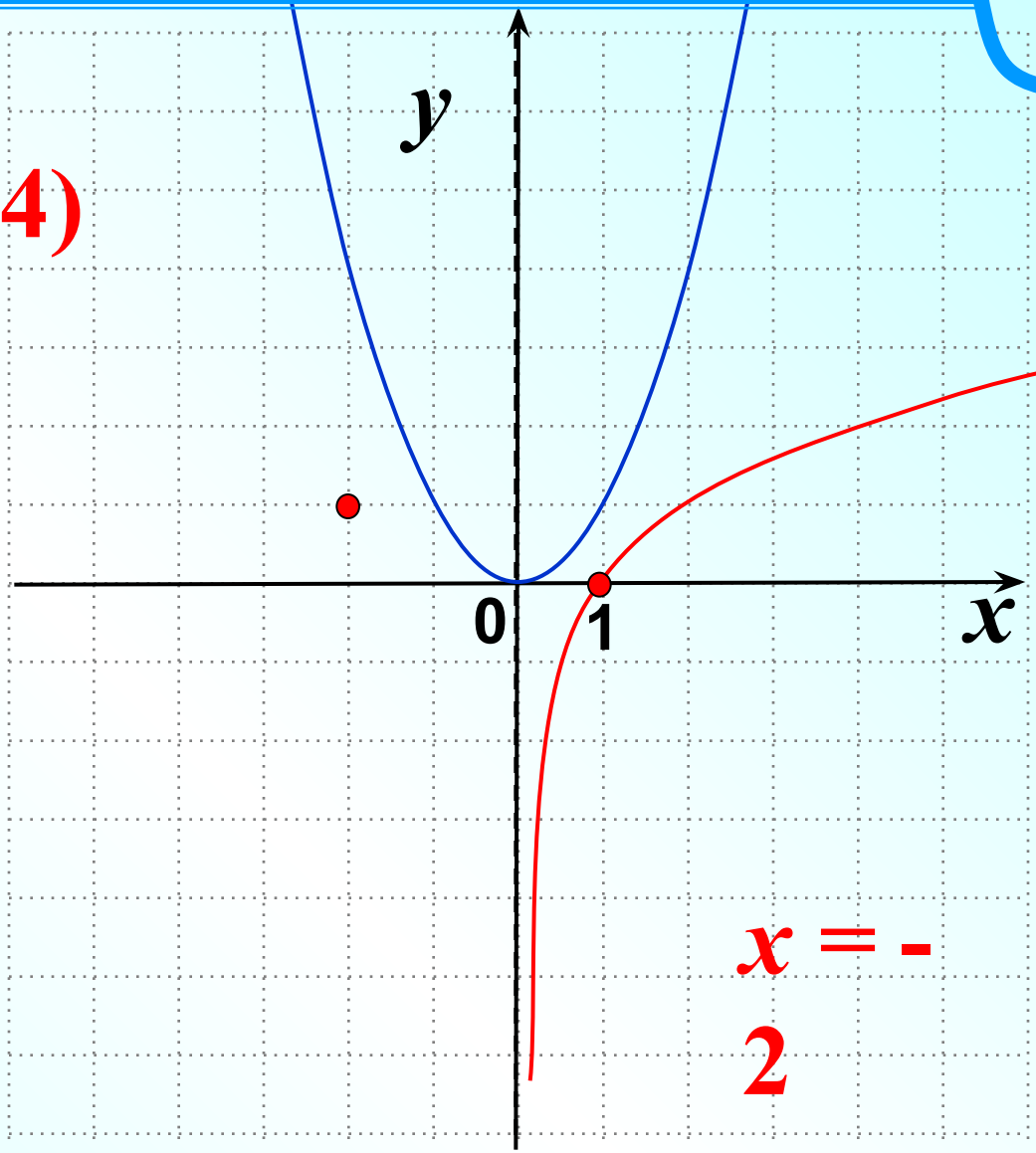
$$D(y): x \neq 0$$

$$E(y): y \geq -2$$


$y = |2\log_2(|x|+1)-2|$
0
1
x
$\left(\frac{1}{2};-2\right)$
$D(y): x \in R$
$E(y): y \geq 0$

Решить уравнение

$(x+3)^2 = log_2(x+4)$



$x = -2$

$x = -3$

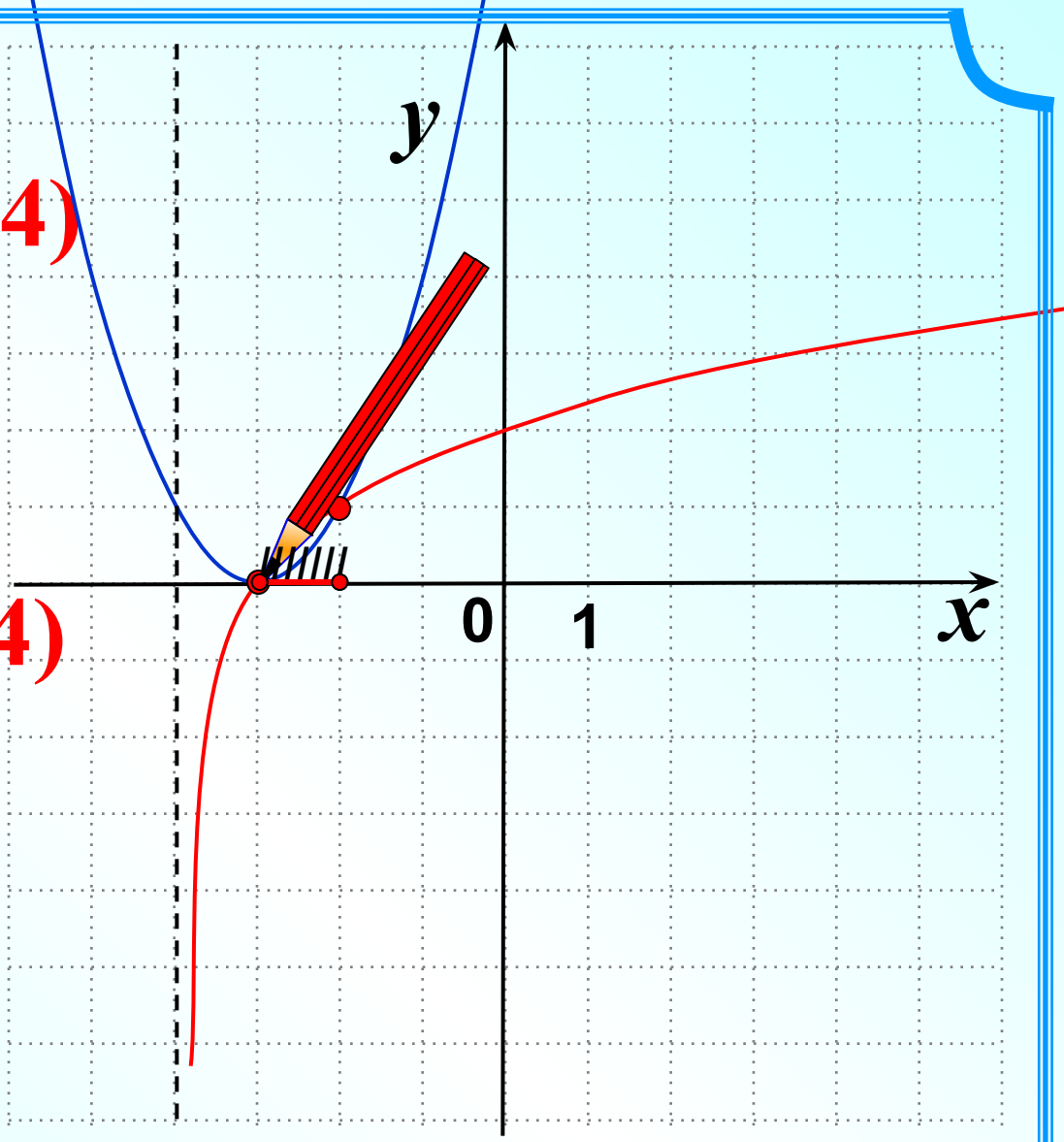
Решить неравенство

$(x+3)^2 < \log_2(x+4)$

$x \in (-3;-2)$

$(x+3)^2 \leq \log_2(x+4)$

$x \in [-3;-2]$



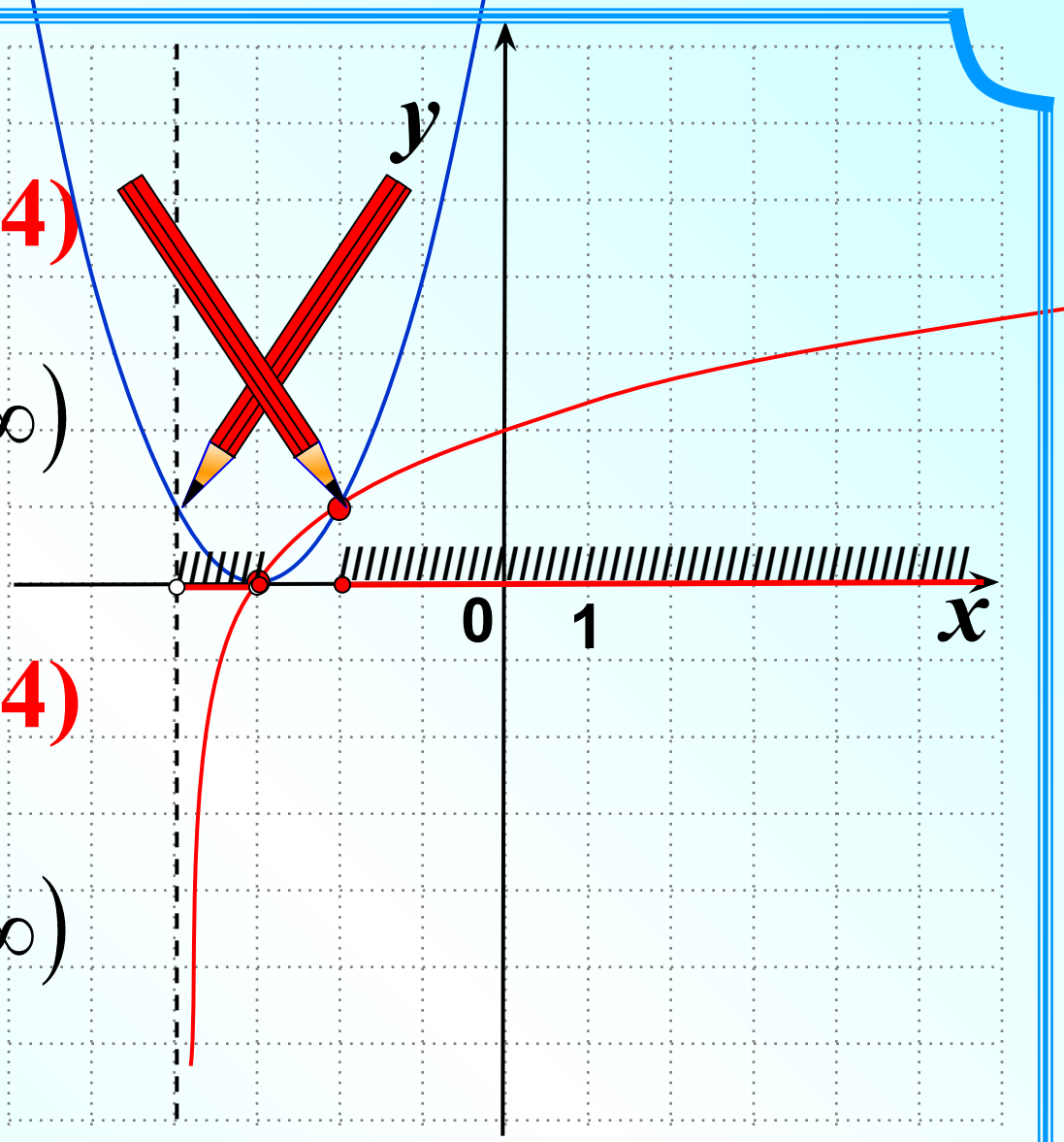
Решить неравенство

$(x+3)^2 > \log_2(x+4)$

$x \in (-4;-3) \cup (-2;+\infty)$

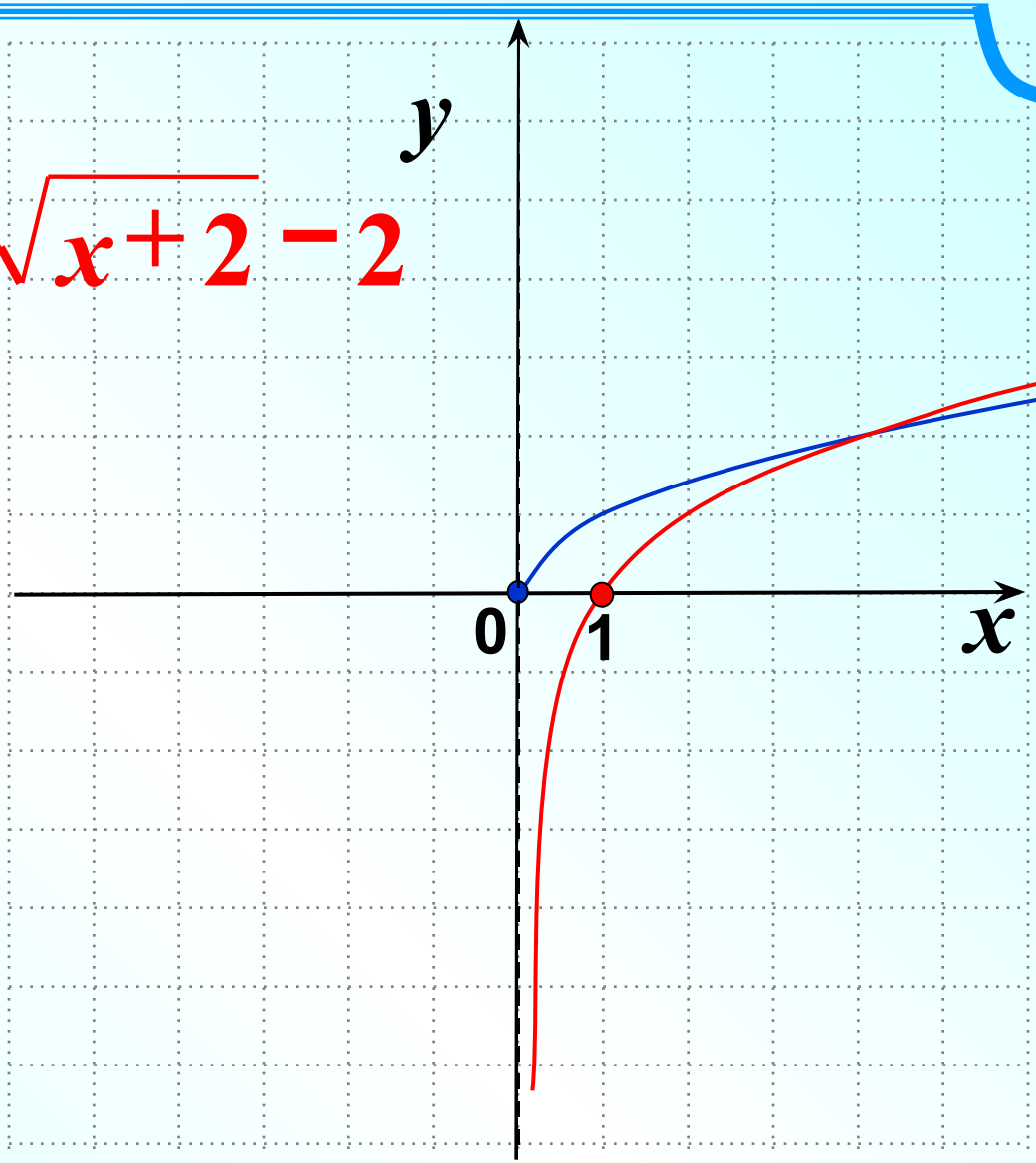
$(x+3)^2 \geq \log_2(x+4)$

$x \in (-4;-3] \cup [-2;+\infty)$



Решить уравнение

$$\log_2(x+2) - 1 = \sqrt{x+2} - 2$$

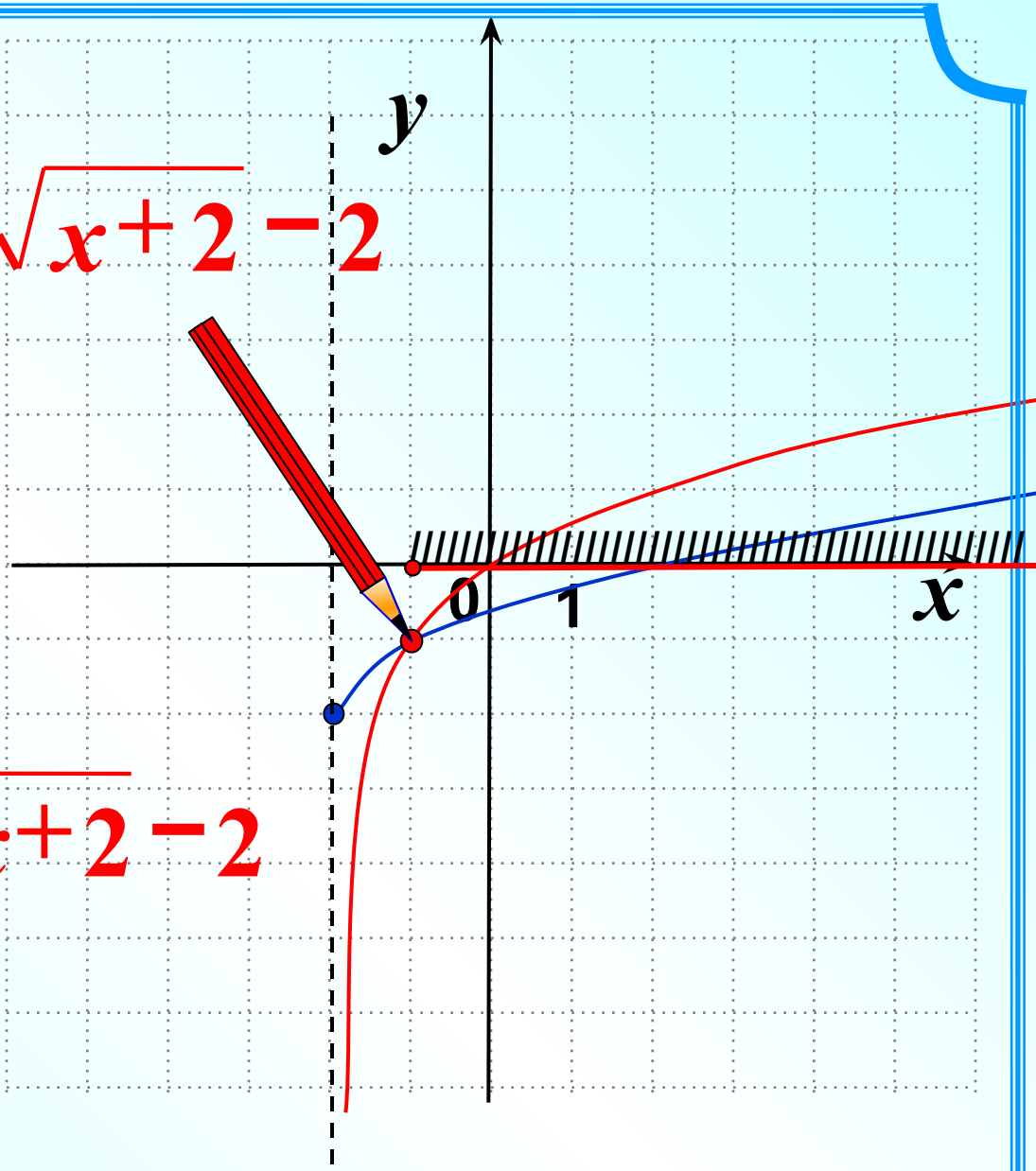


$x = -$

Решить неравенство

$$\log_2(x+2)-1>\sqrt{x+2}-2$$

$$x\in(-1;+\infty)$$



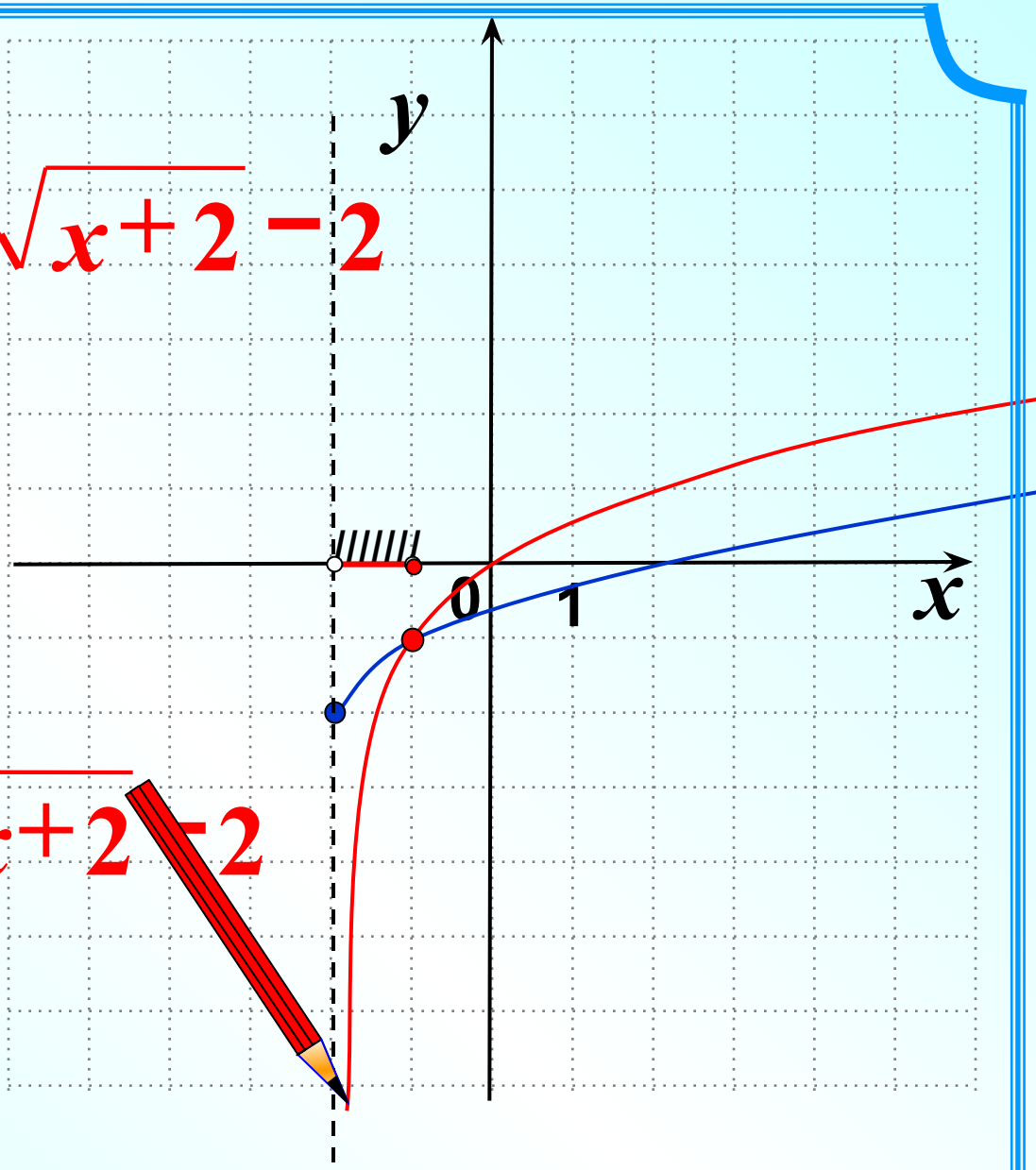
$$\log_2(x+2)-1\geqslant\sqrt{x+2}-2$$

$$x\in[-1;+\infty)$$

Решить неравенство

$$\log_2(x+2)-1<\sqrt{x+2}-2$$

$$x\in(-2;-1)$$



$$\log_2(x+2)-1\leqslant\sqrt{x+2}-2$$

$$x\in(-2;-1]$$