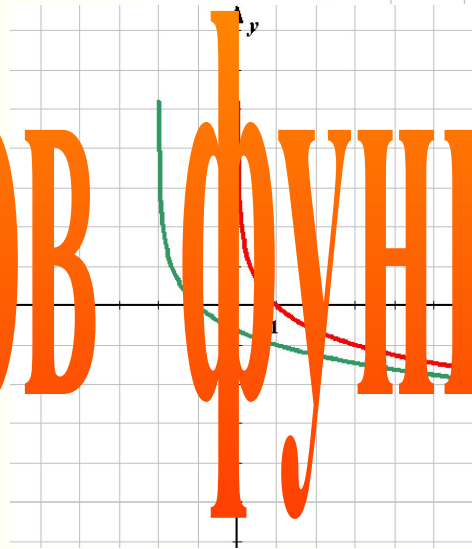
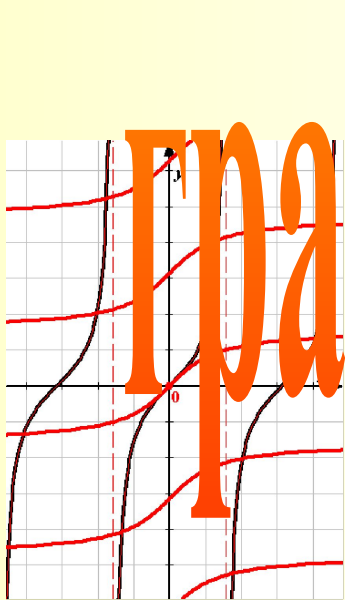
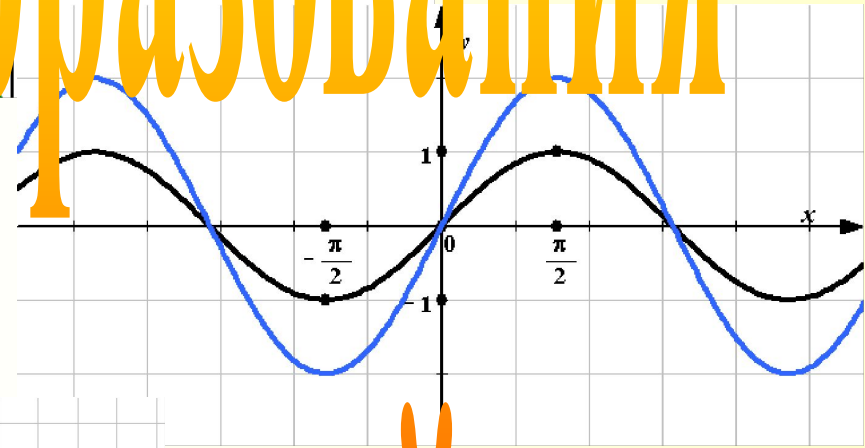
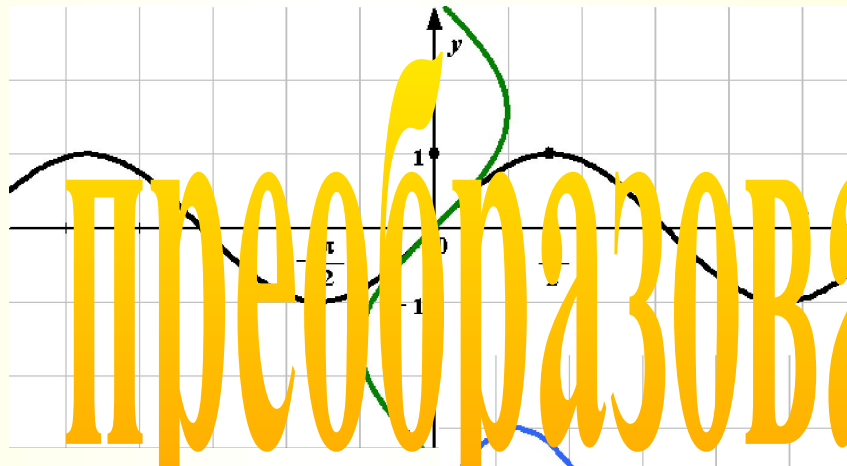
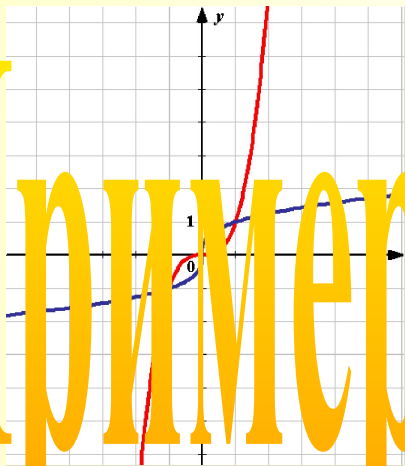


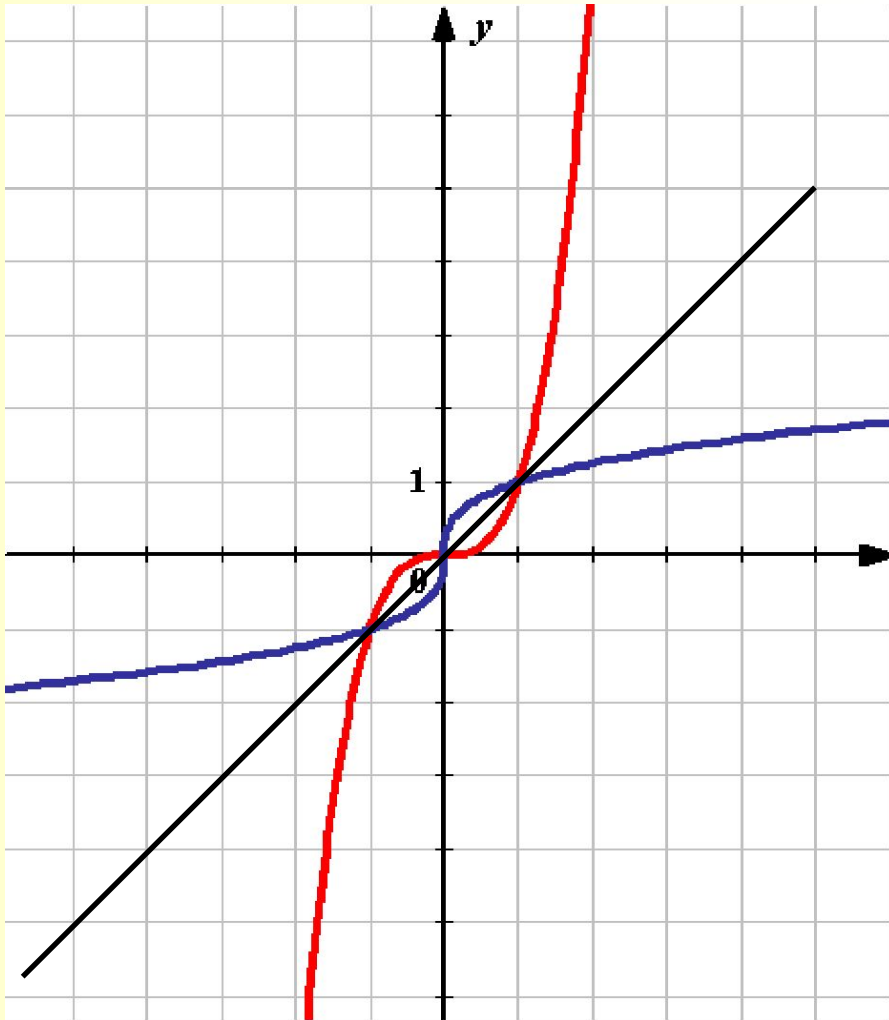
Примеры преобразования



графиков функций.

$$y = x^3$$

x	0	1	2
y	0	1	8



$$y = -x^3$$

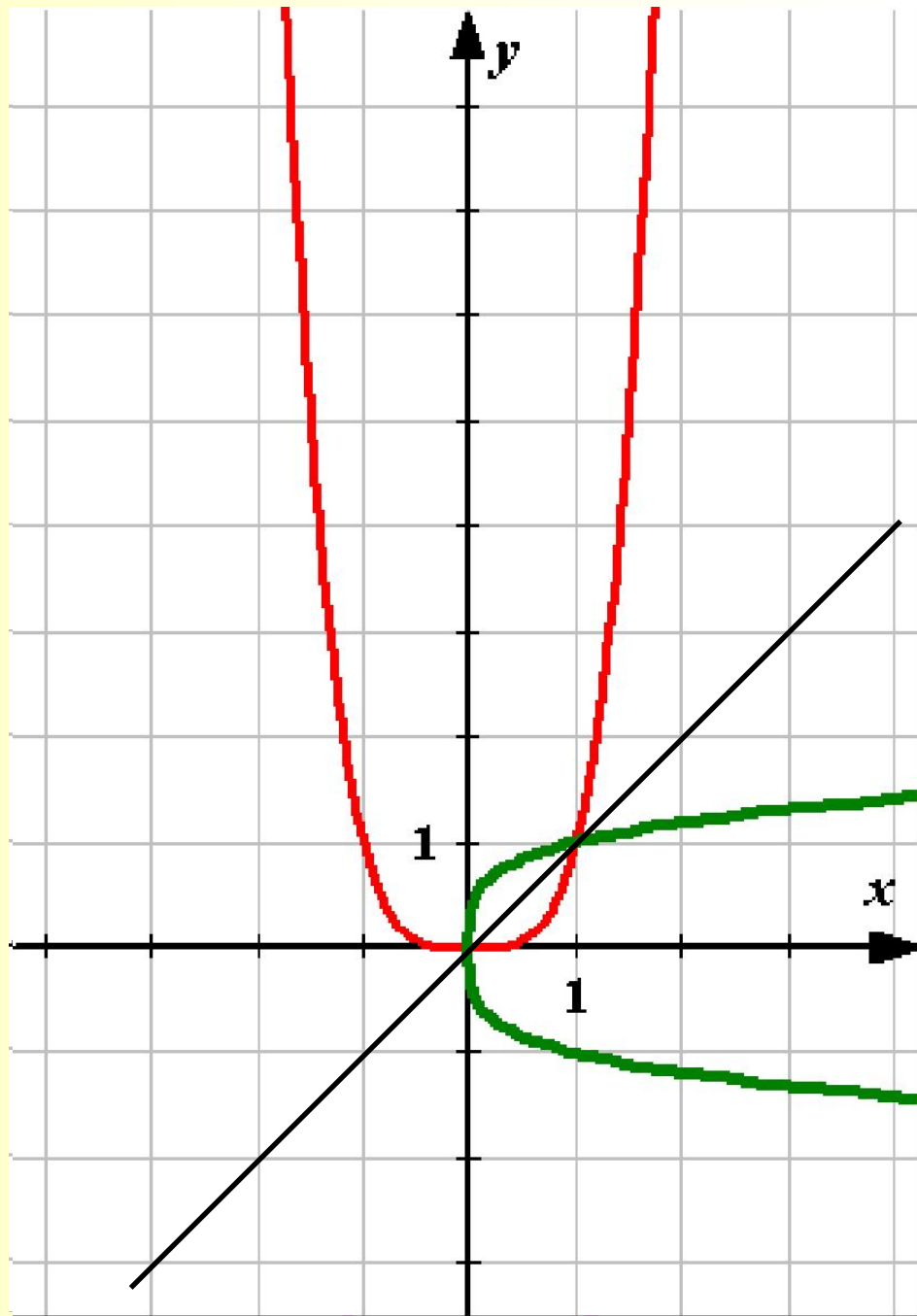
$$y = (x - 1)^3$$

$$y = x^3 + 1$$

$$y = 2x^3$$

$$y = (2x)^3$$

$$x = y^3$$



$$y = x^4$$

$$y = -x^4$$

$$y = (-x)^4$$

$$y = (x-1)^4$$

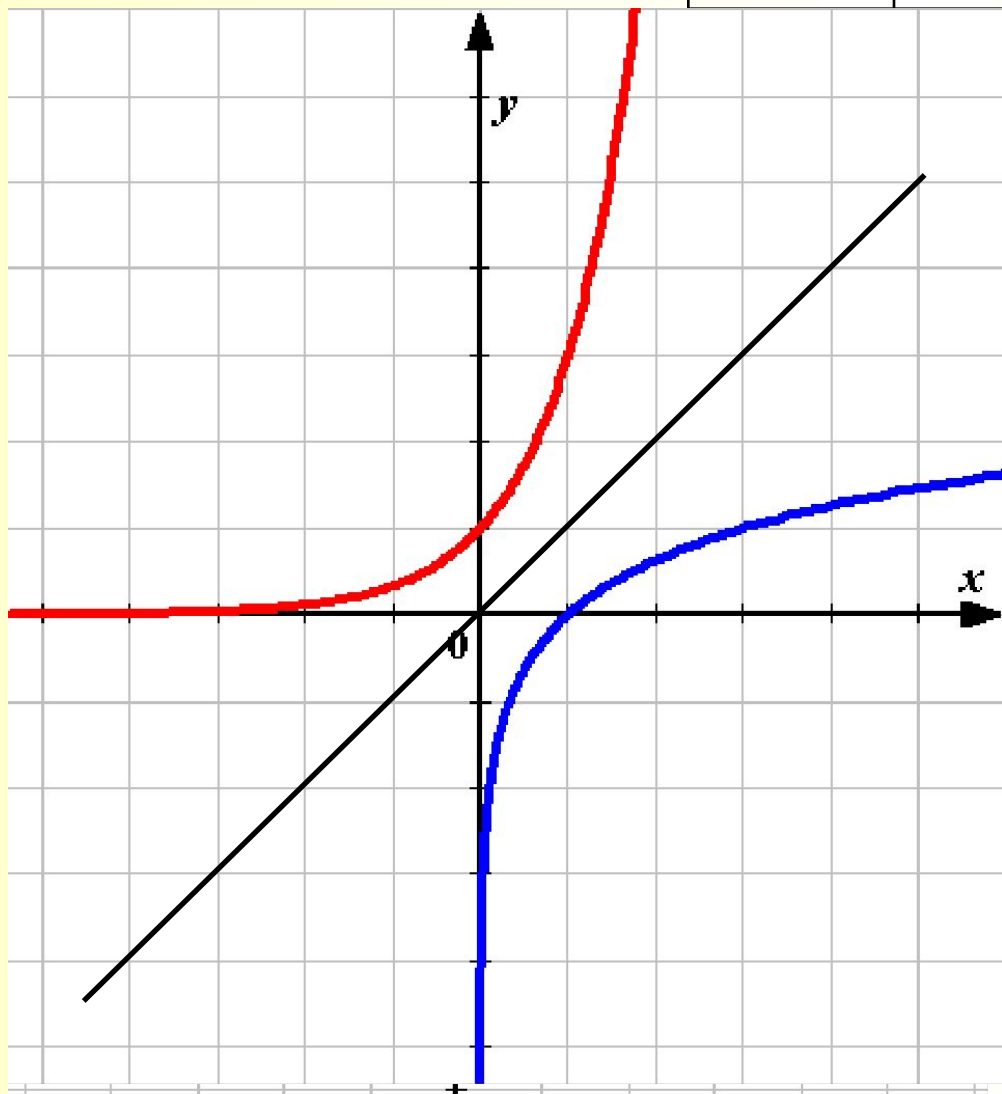
$$y = x^4 - 1$$

$$y = -2x^4$$

$$x = y^4$$

$$y = 3^x$$

x	-1	0	1	2
y	$1/3$	1	3	9



$$y = 3^{-x}$$

$$y = 3^{x-2}$$

$$y = 3^x - 2$$

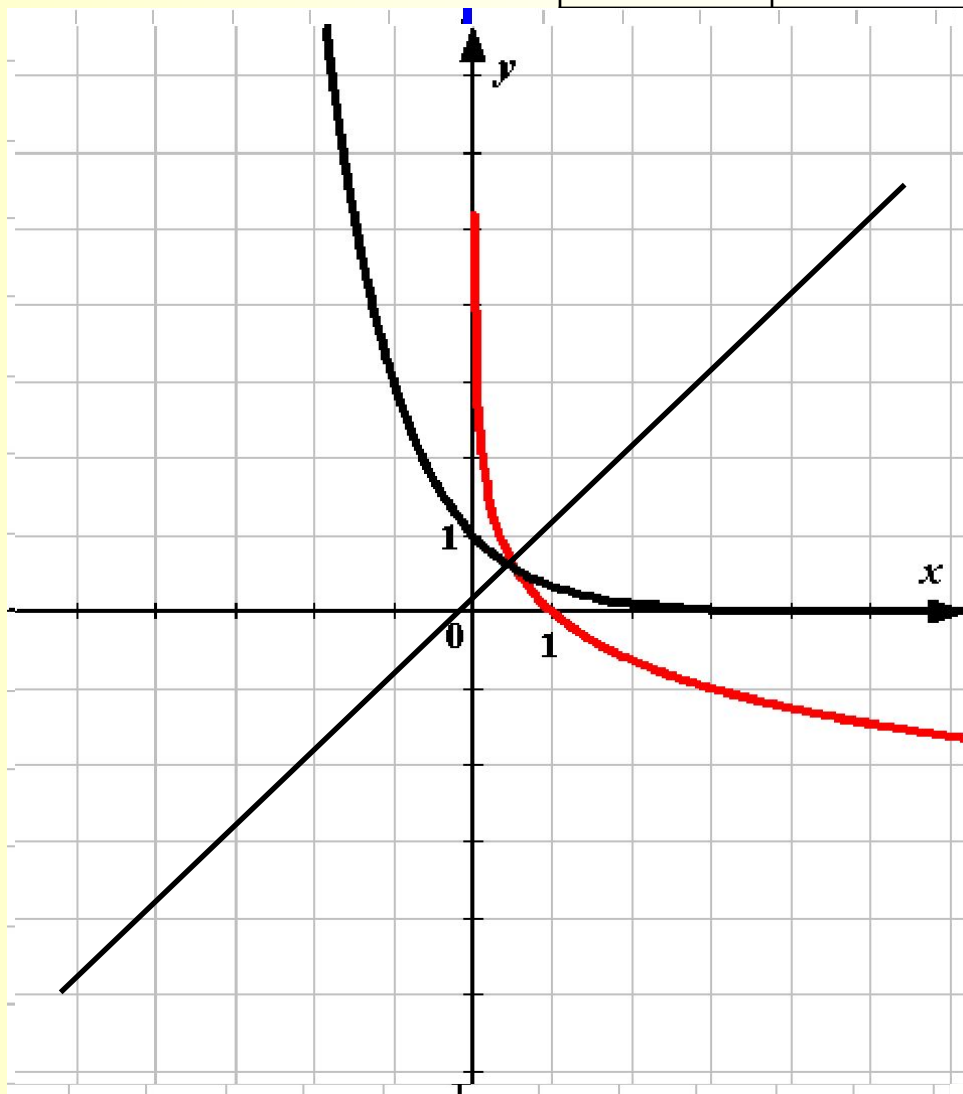
$$y = -3^x$$

$$y = 3^{2x}$$

$$x = 3^y$$

$$y = \log_{1/3} x$$

x	$1/9$	$1/3$	1	3	9
y	2	1	0	-1	-2



$$y = -\log_{1/3} x$$

$$y = \log_{1/3} (-x)$$

$$y = \log_{1/3} (x+2)$$

$$y = \log_{1/3} x + 2$$

$$y = 2\log_{1/3} x$$

$$x = \log_{1/3} y$$

$$y = \sin x$$

$$y = -\sin x$$

$$y = \sin(-x)$$

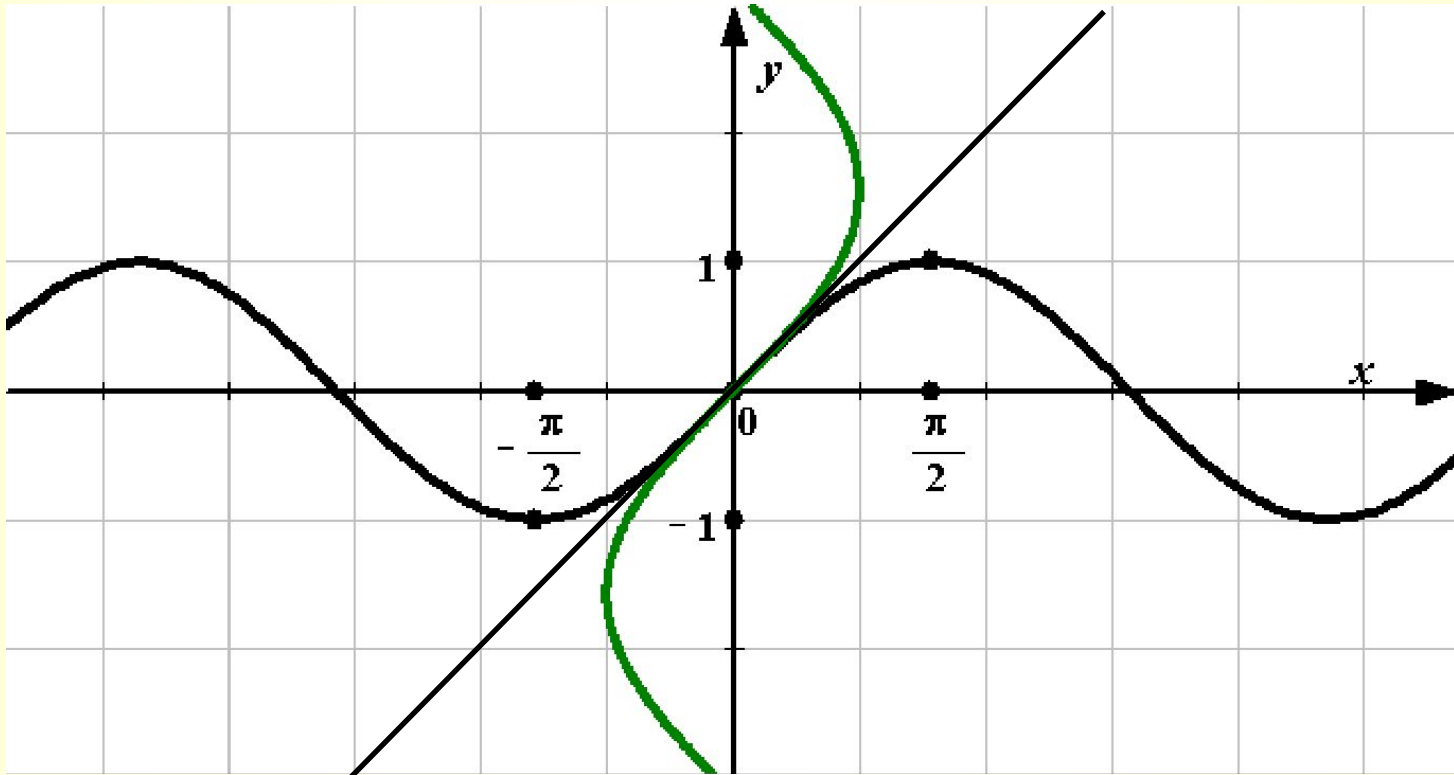
$$y = \sin(x-1)$$

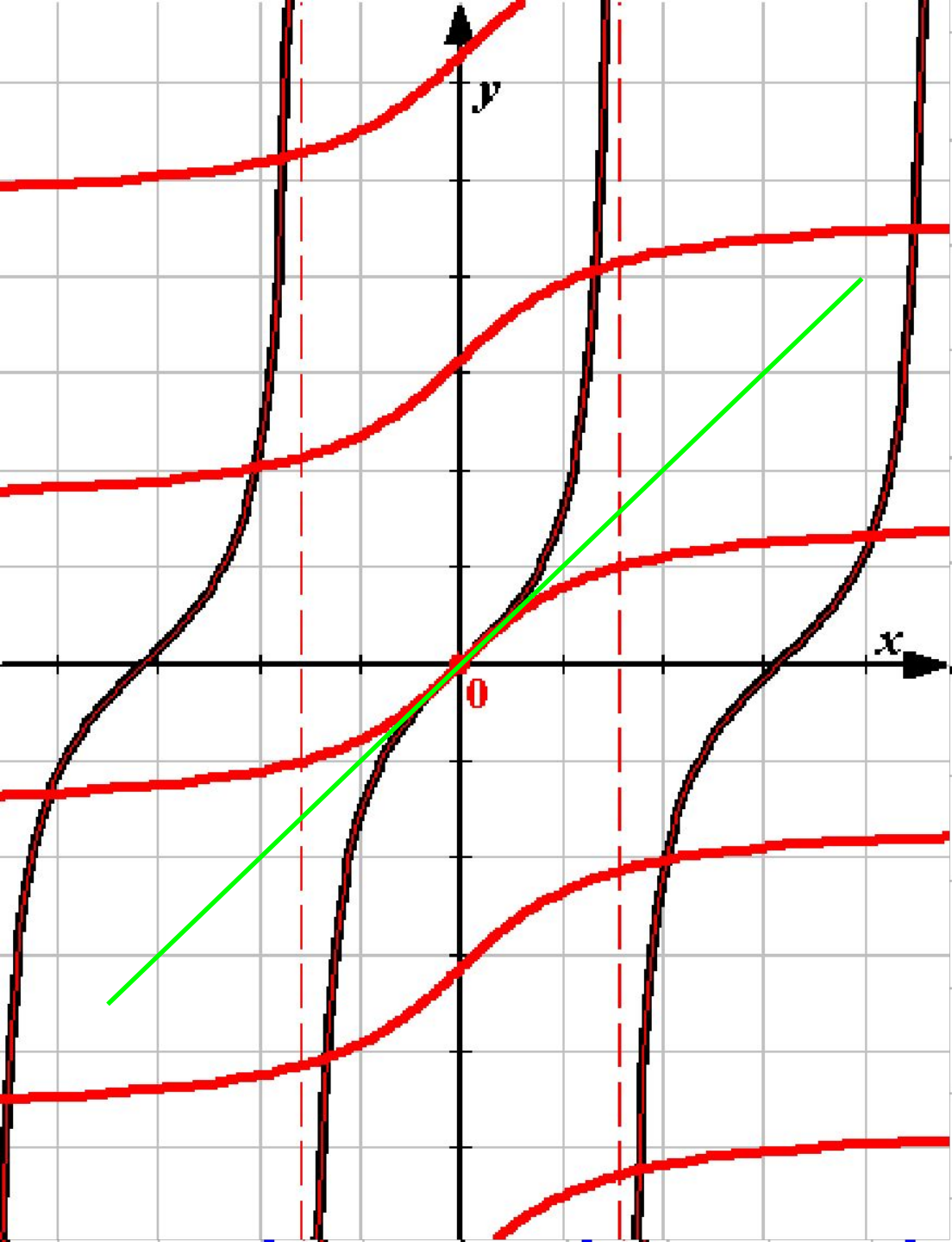
$$y = \sin x - 1$$

$$y = 2\sin x$$

$$y = \sin 3x$$

$$x = \sin y$$





$$y = \operatorname{tg}x$$

$$y = -\operatorname{tg}x$$

$$y = \operatorname{tg}(-x)$$

$$y = \operatorname{tg}(x+2)$$

$$y = -2\operatorname{tg}x$$

$$x = \operatorname{tgy}$$