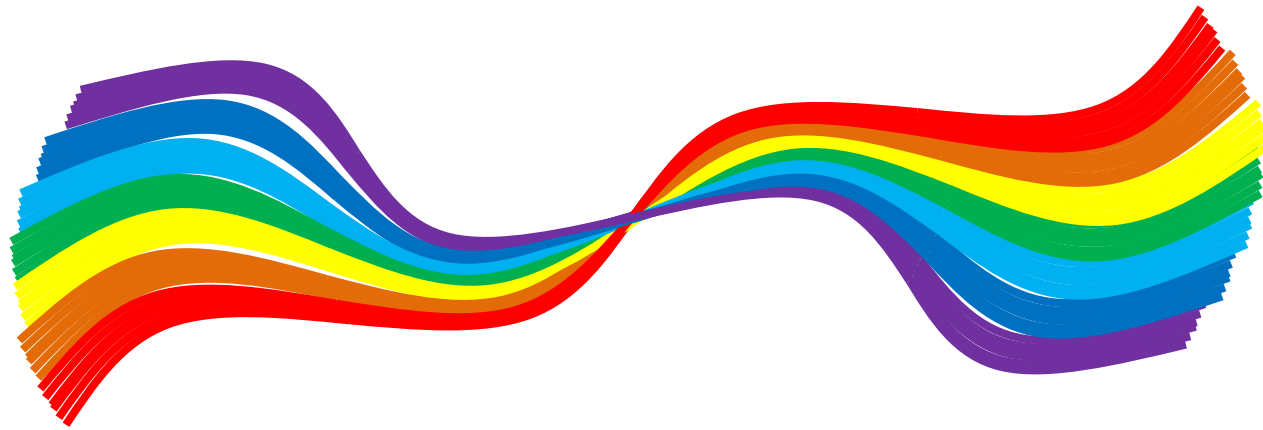
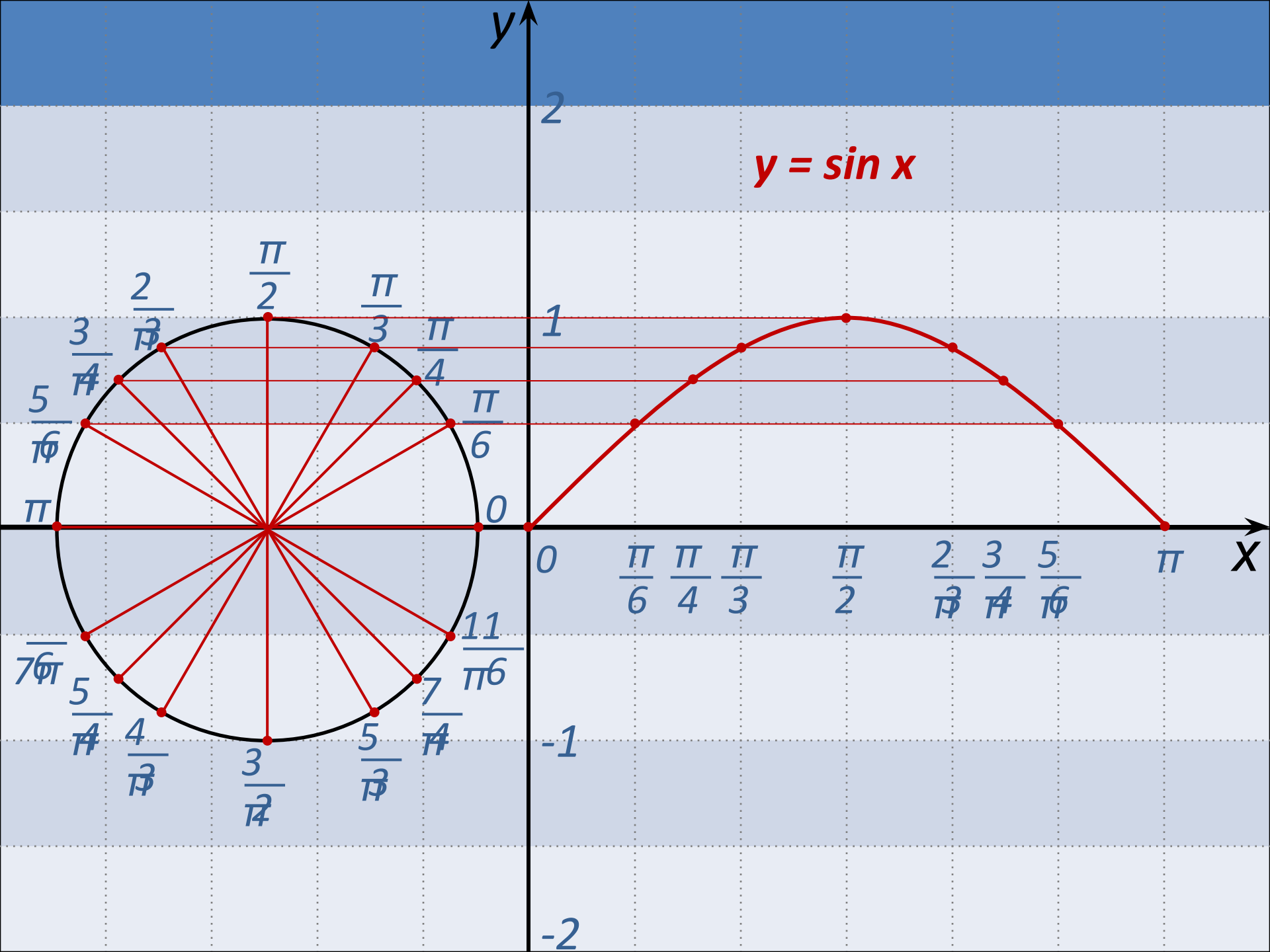
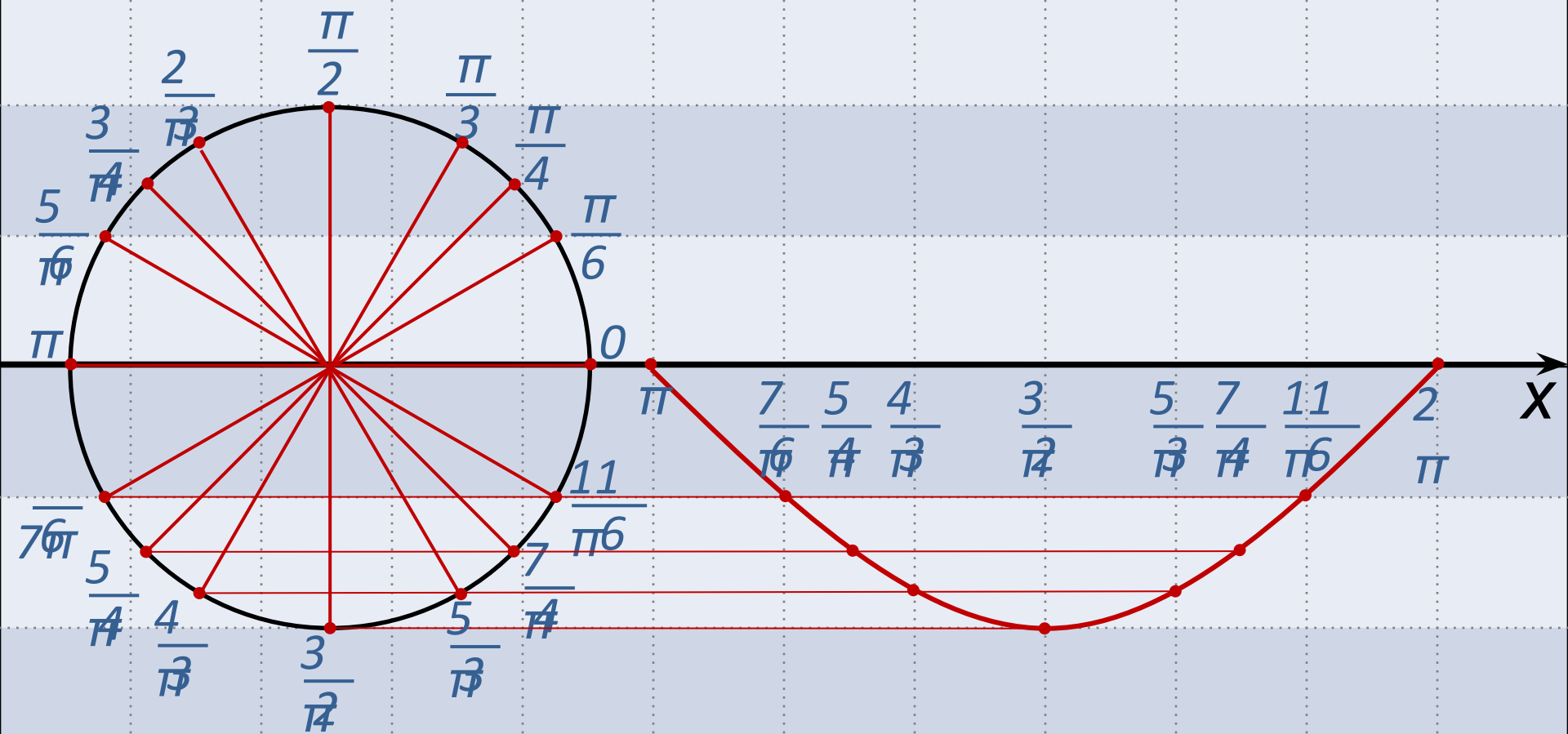


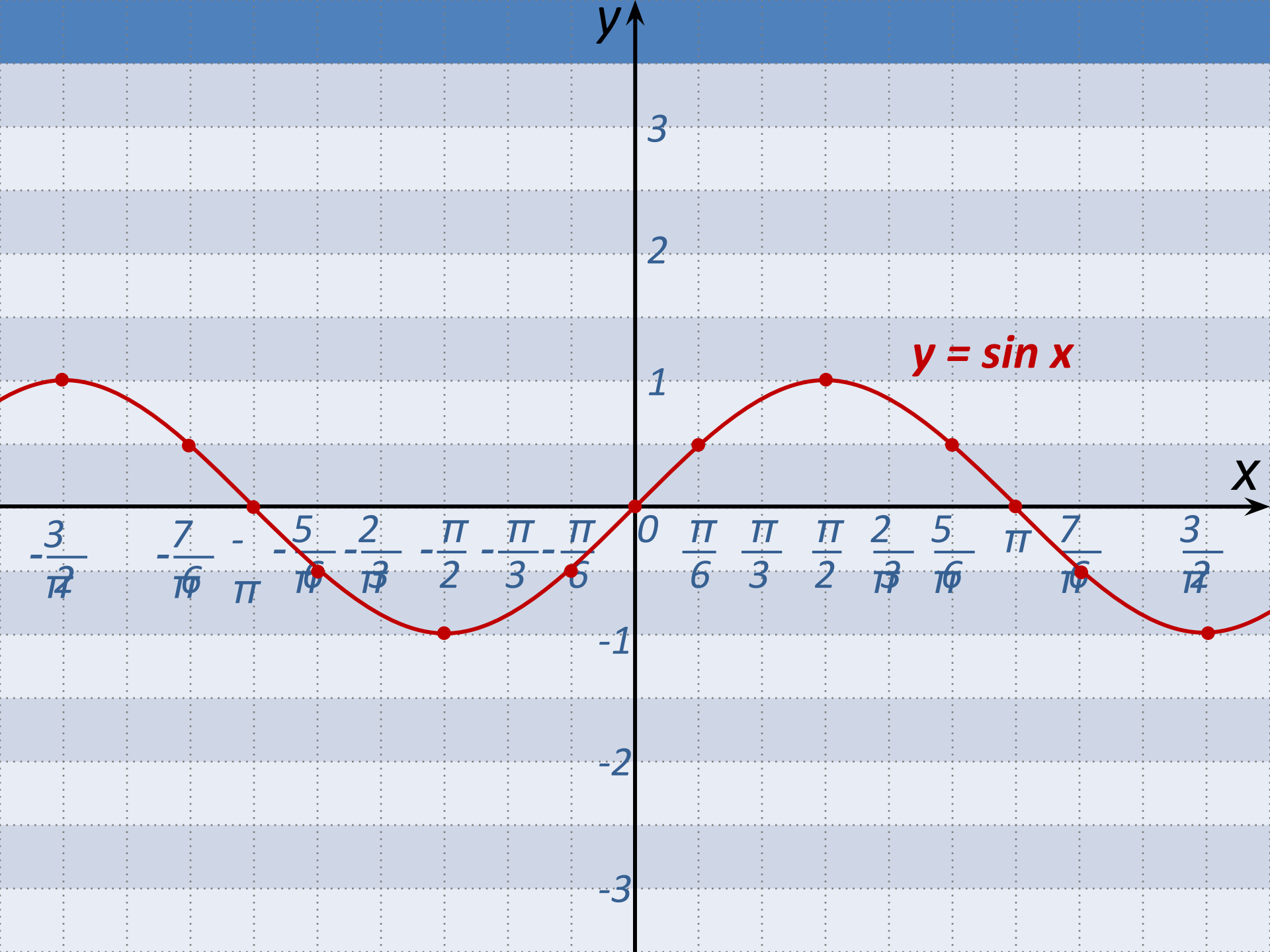
Построение графиков тригонометрических функций

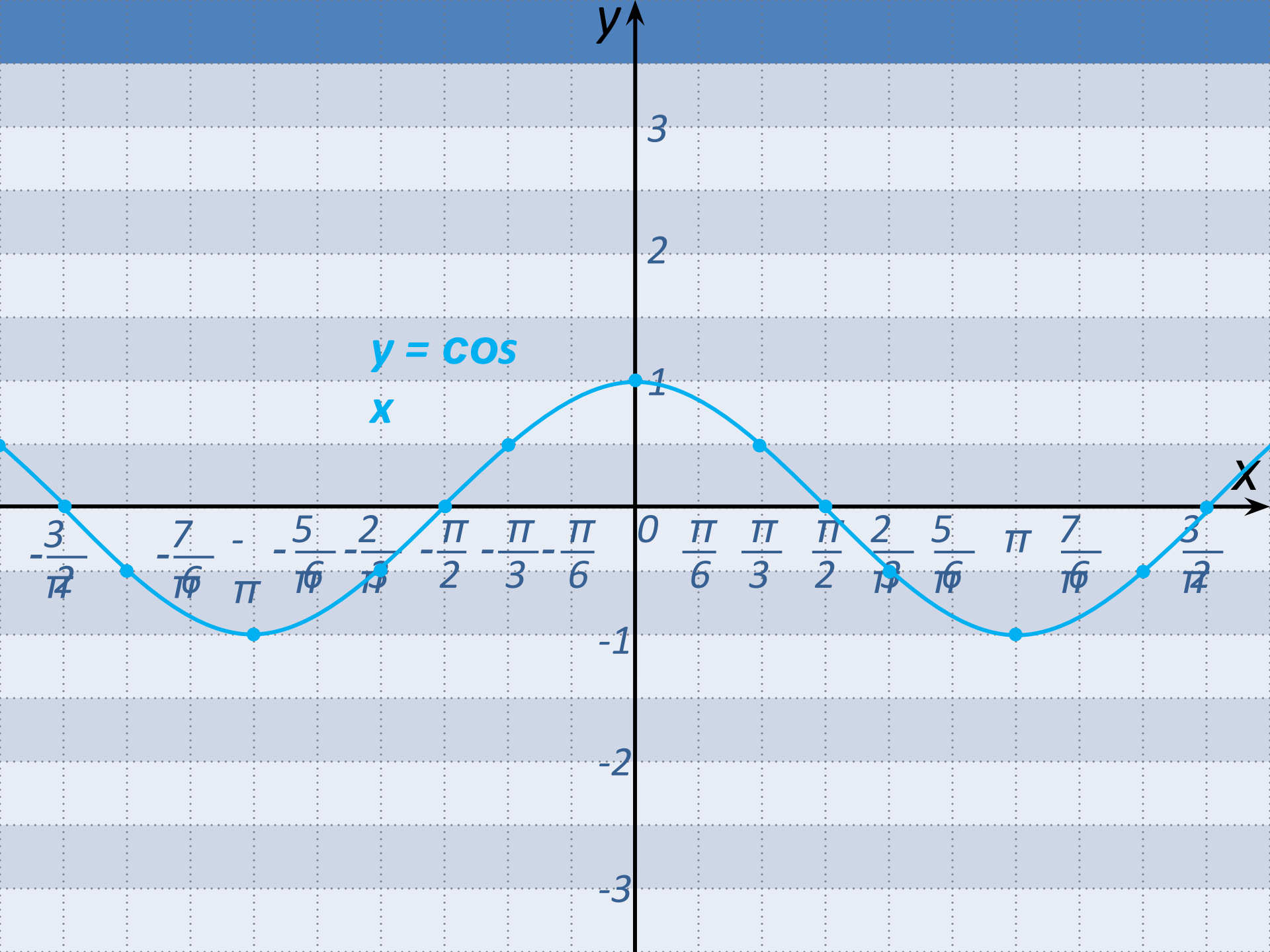


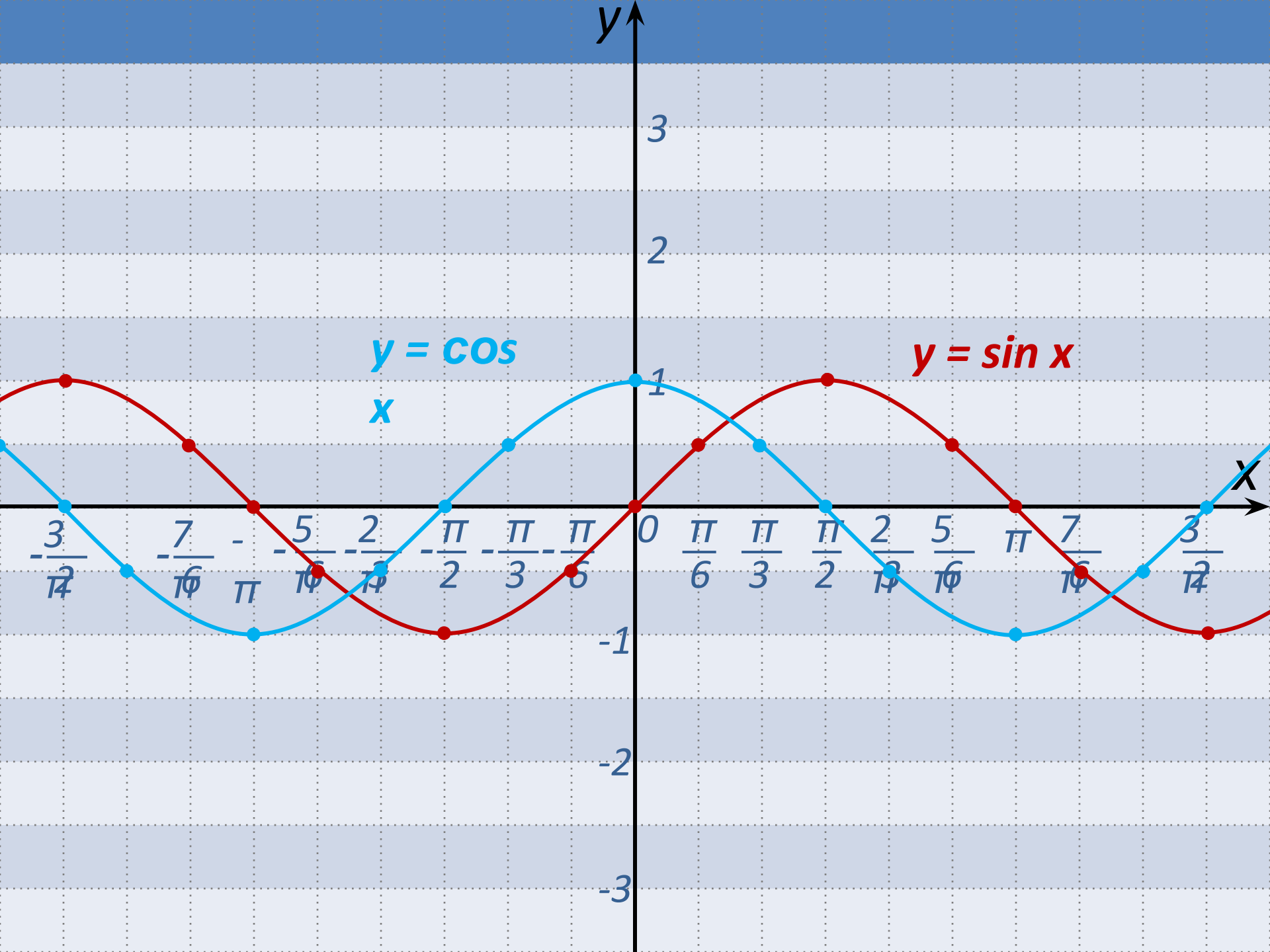


$$y = \sin x$$





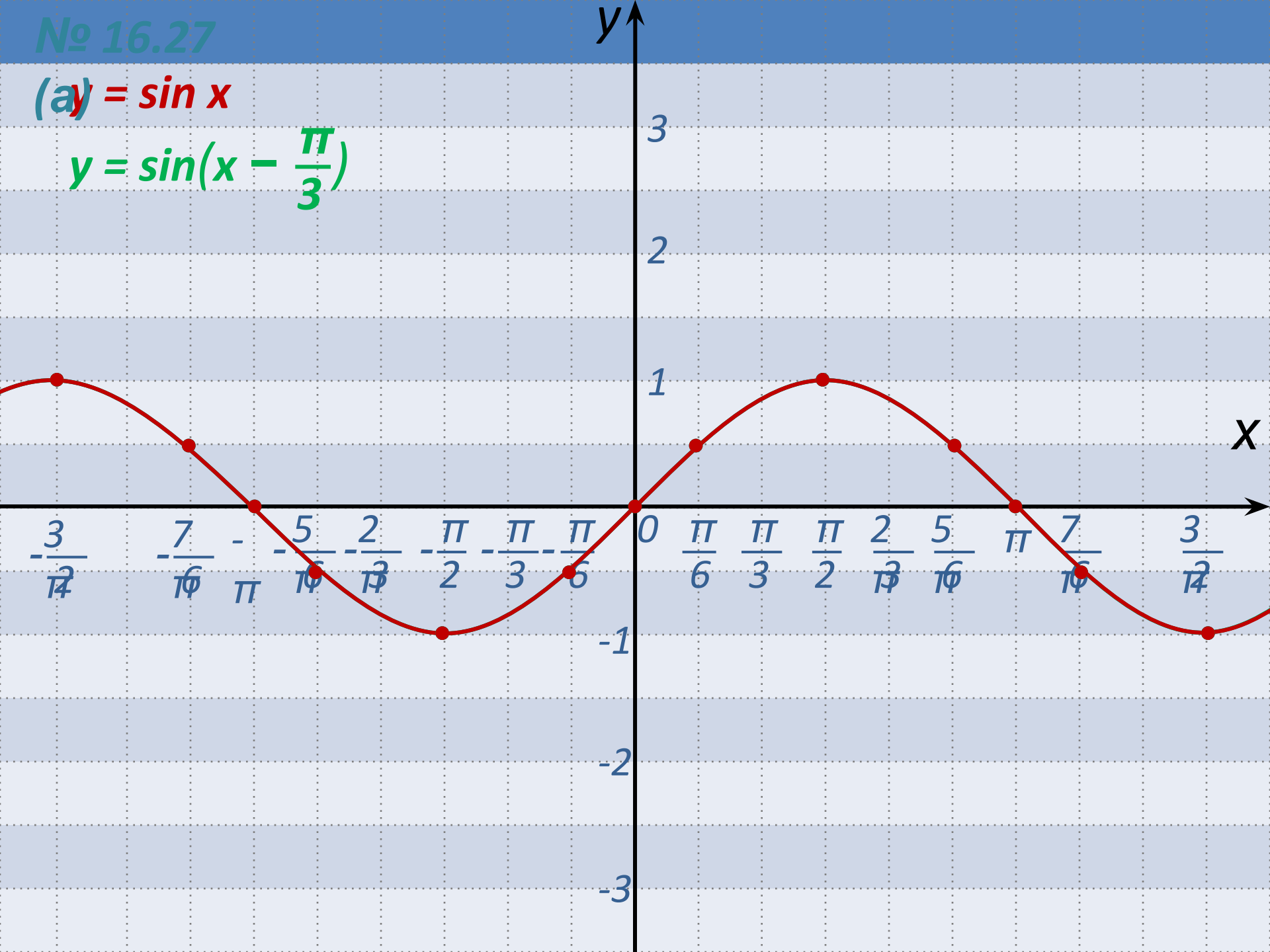




№ 16.27

$(a) = \sin x$

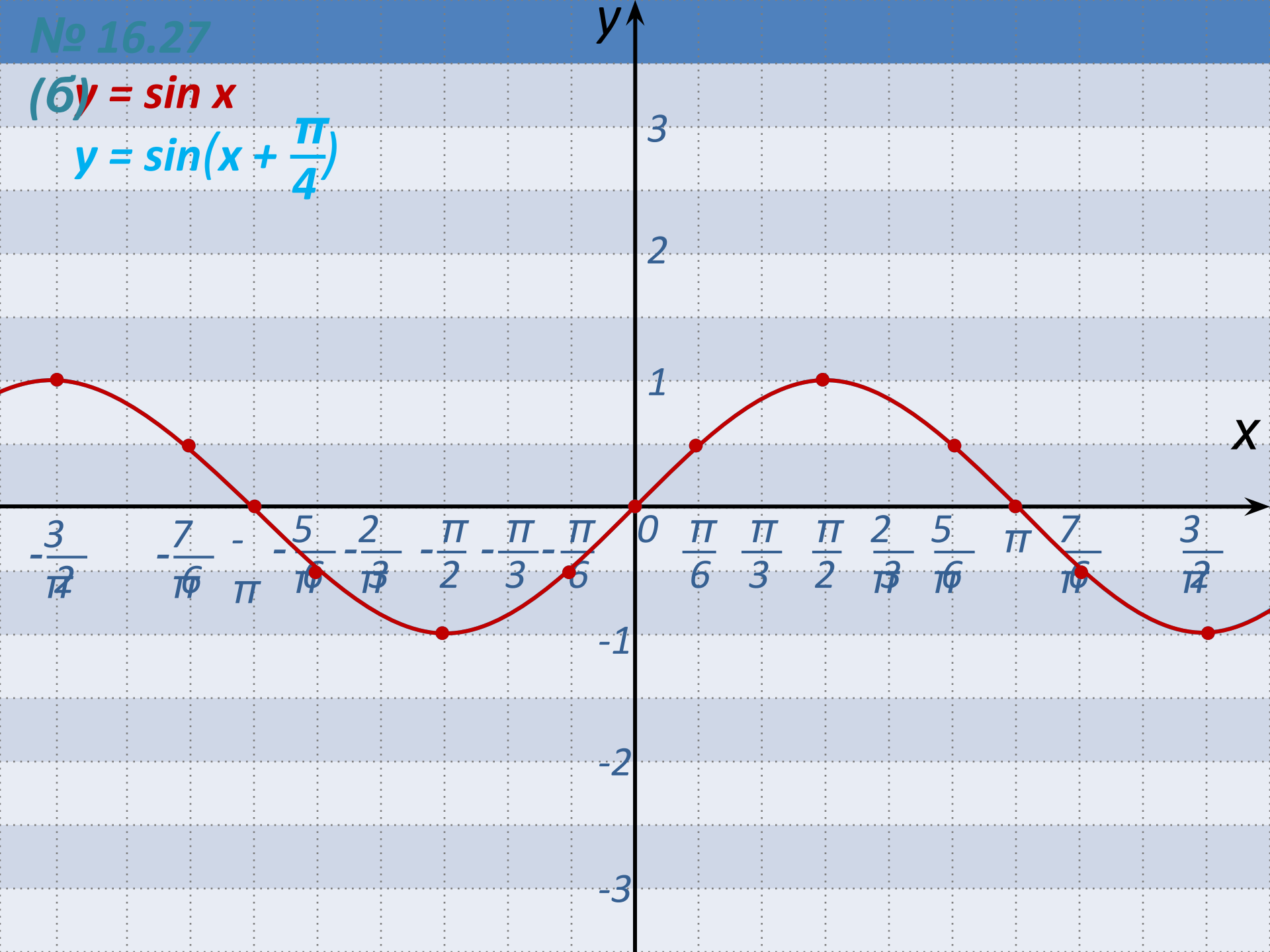
$y = \sin(x - \frac{\pi}{3})$



№ 16.27

$(6) y = \sin x$

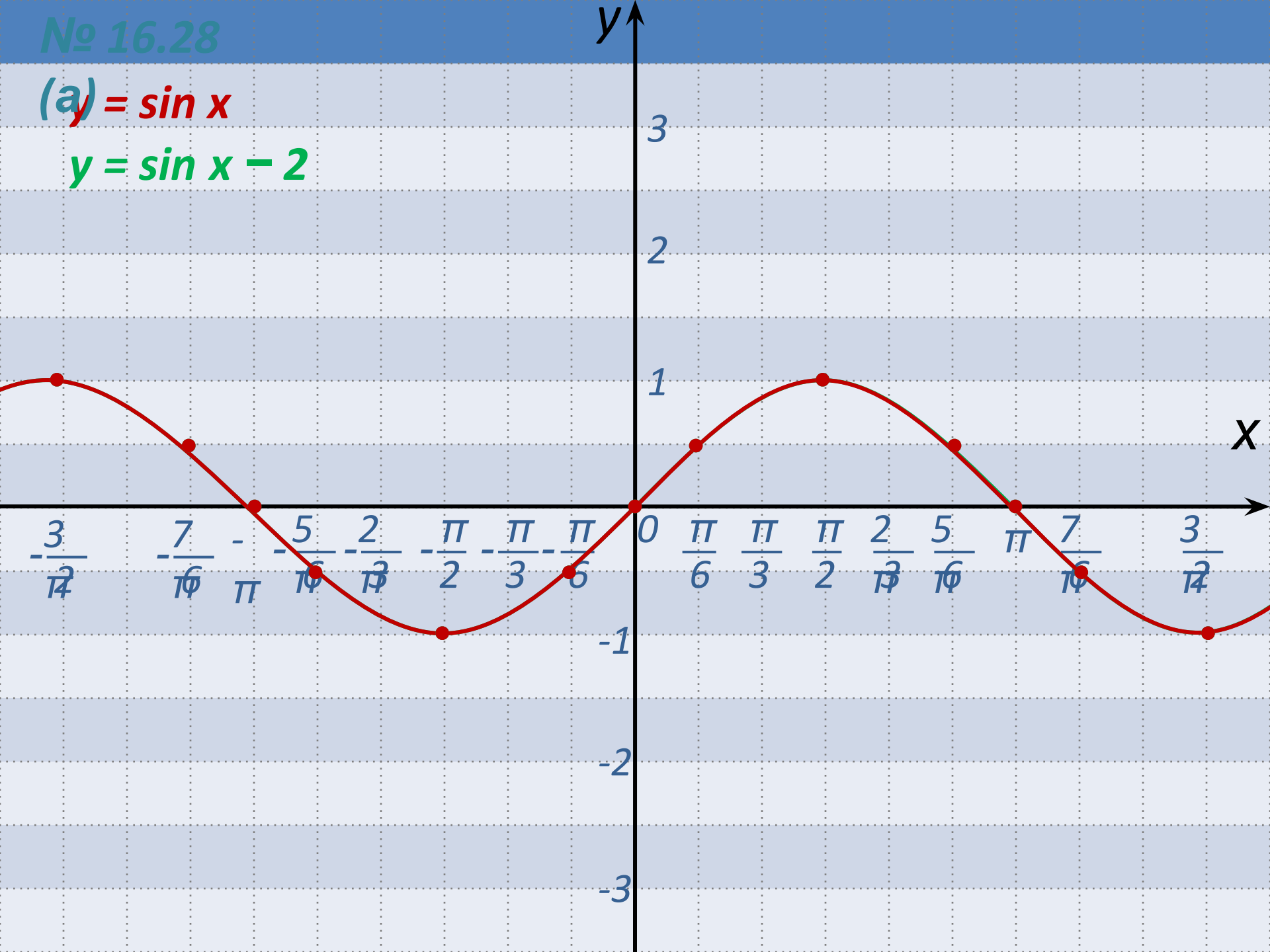
$y = \sin(x + \frac{\pi}{4})$



№ 16.28

$(a) y = \sin x$

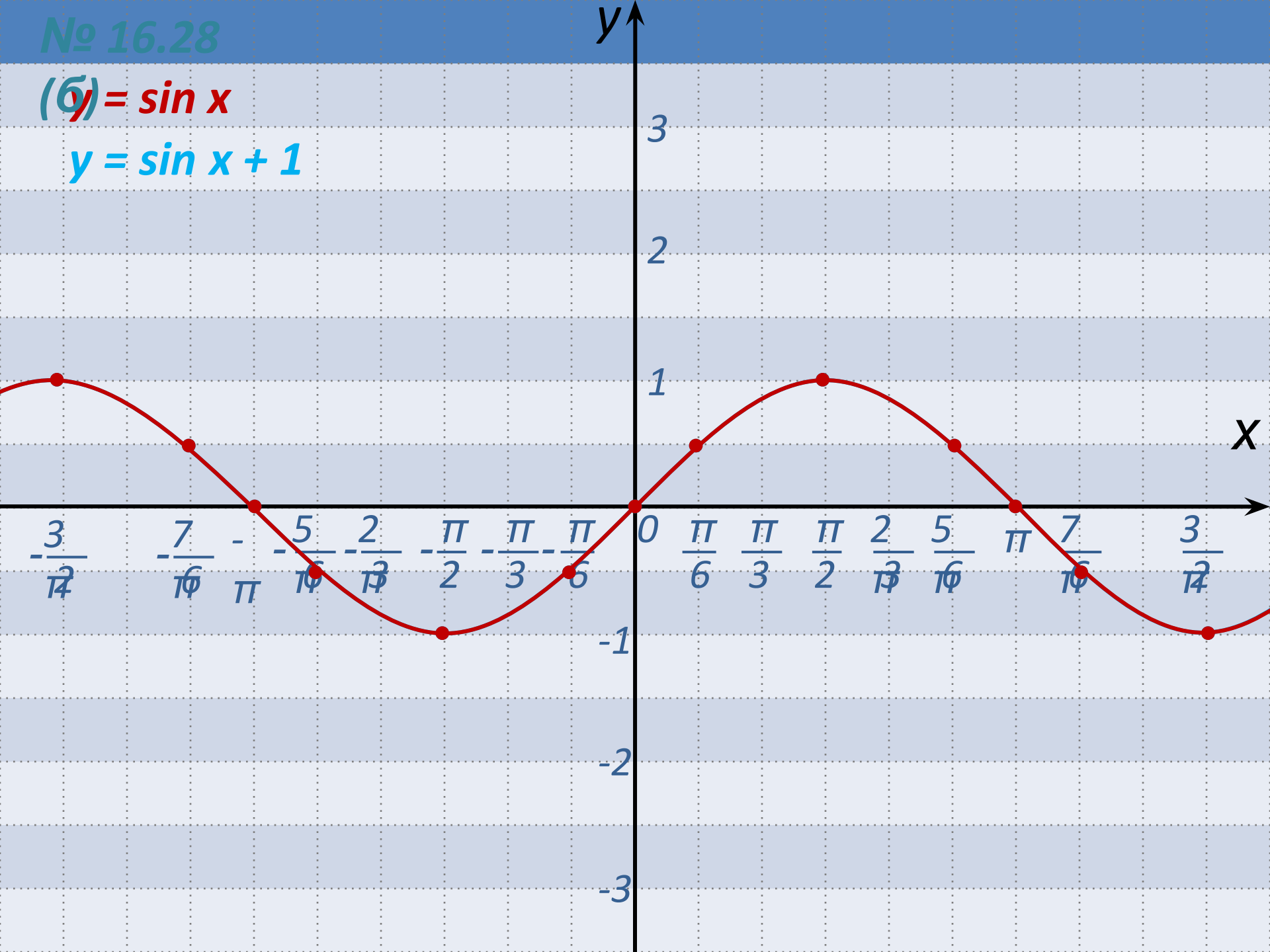
$y = \sin x - 2$



№ 16.28

~~(6)~~ $y = \sin x$

$y = \sin x + 1$



№ 16.29

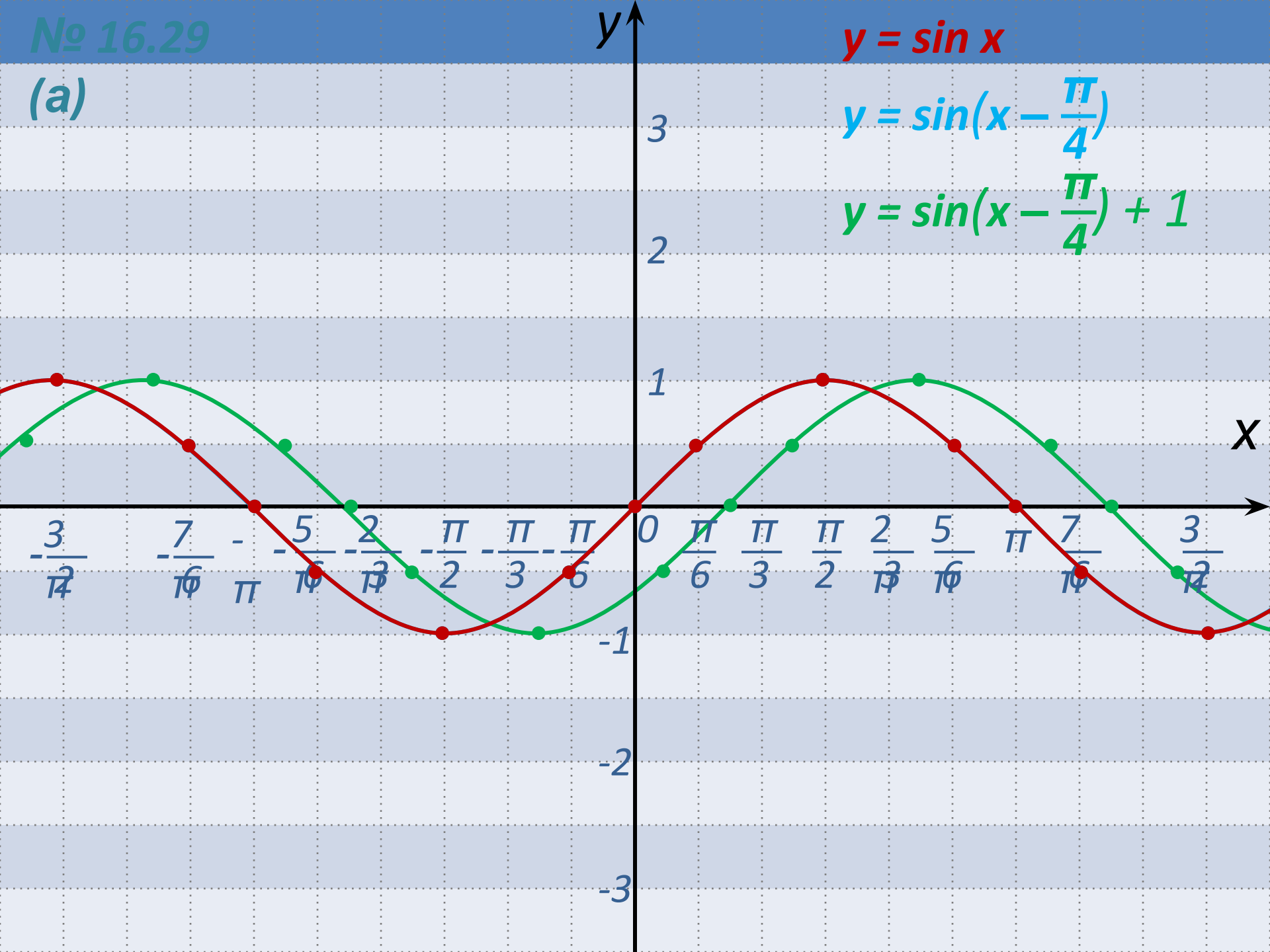
(a)

y

$$y = \sin x$$

$$y = \sin\left(x - \frac{\pi}{4}\right)$$

$$y = \sin\left(x - \frac{\pi}{4}\right) + 1$$



№ 16.30

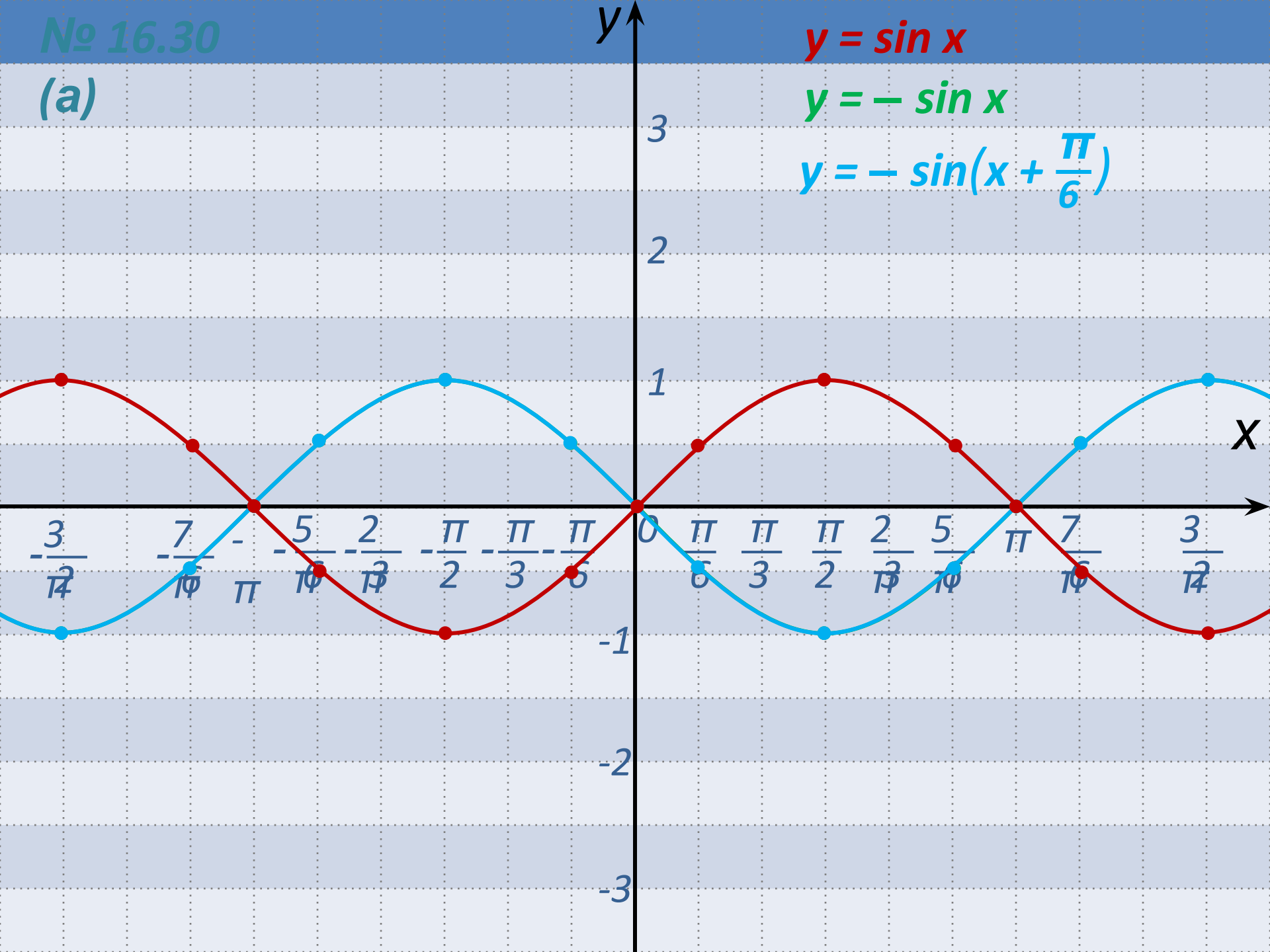
(a)

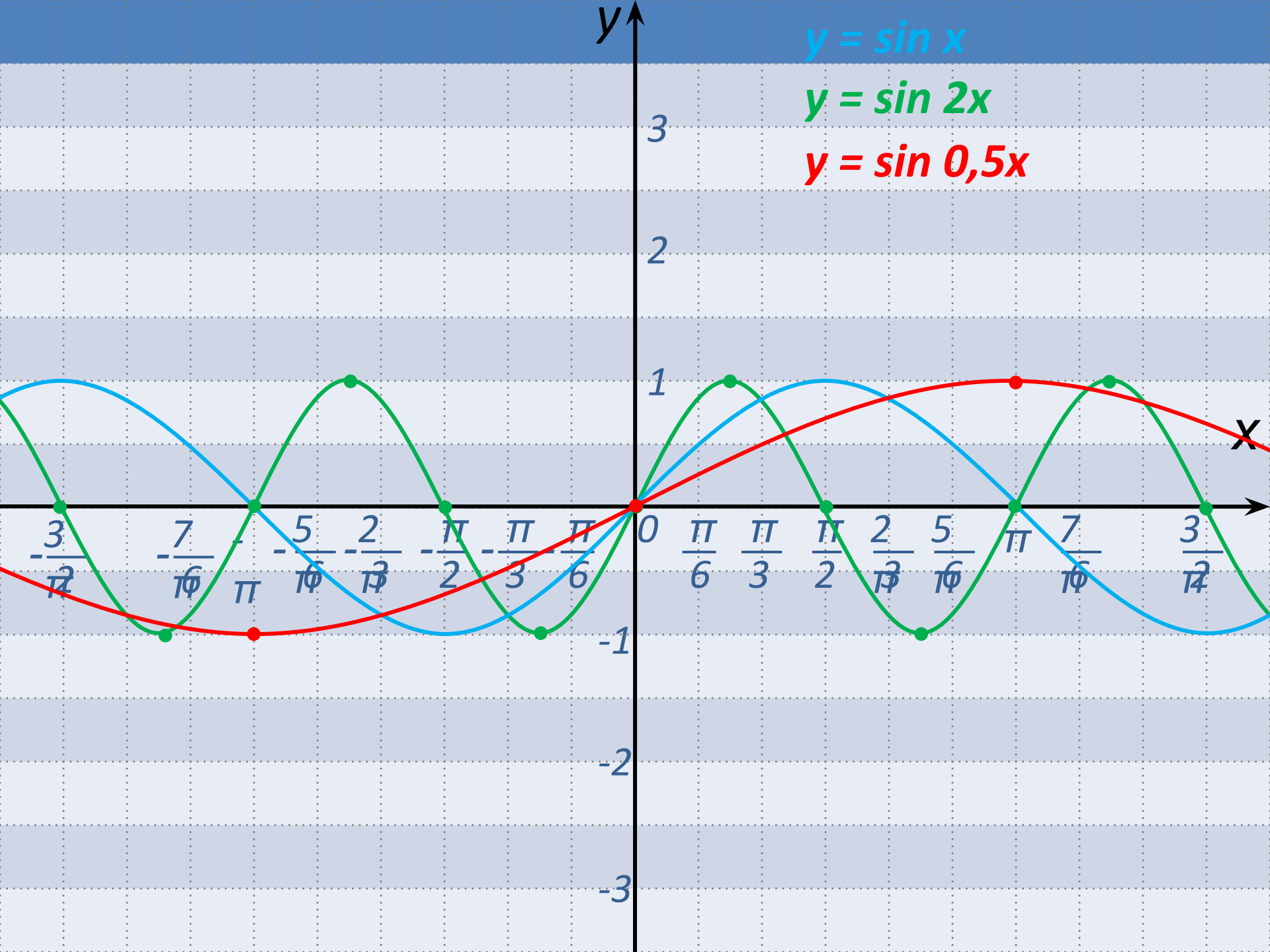
y

$$y = \sin x$$

$$y = -\sin x$$

$$y = -\sin\left(x + \frac{\pi}{6}\right)$$

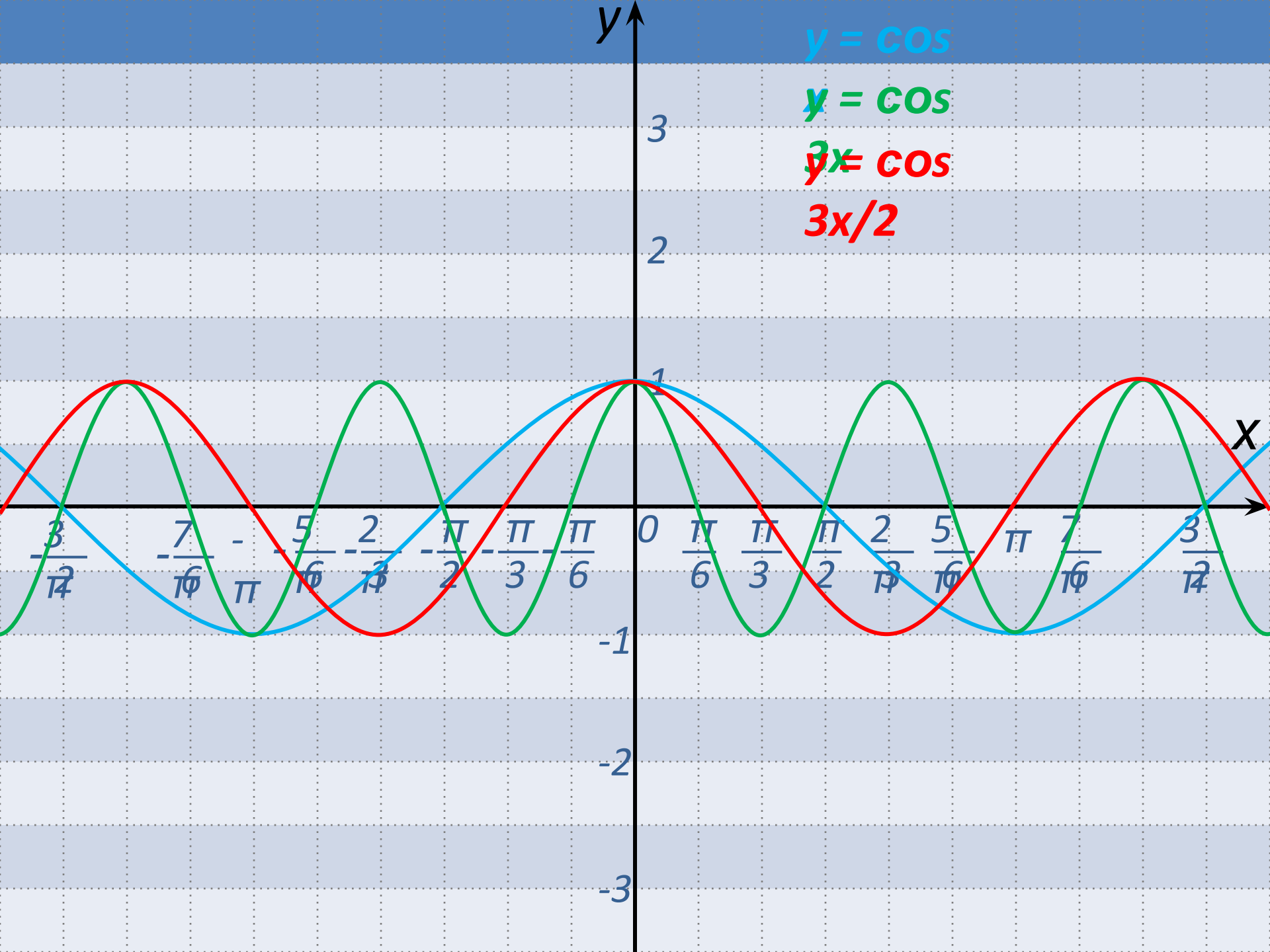


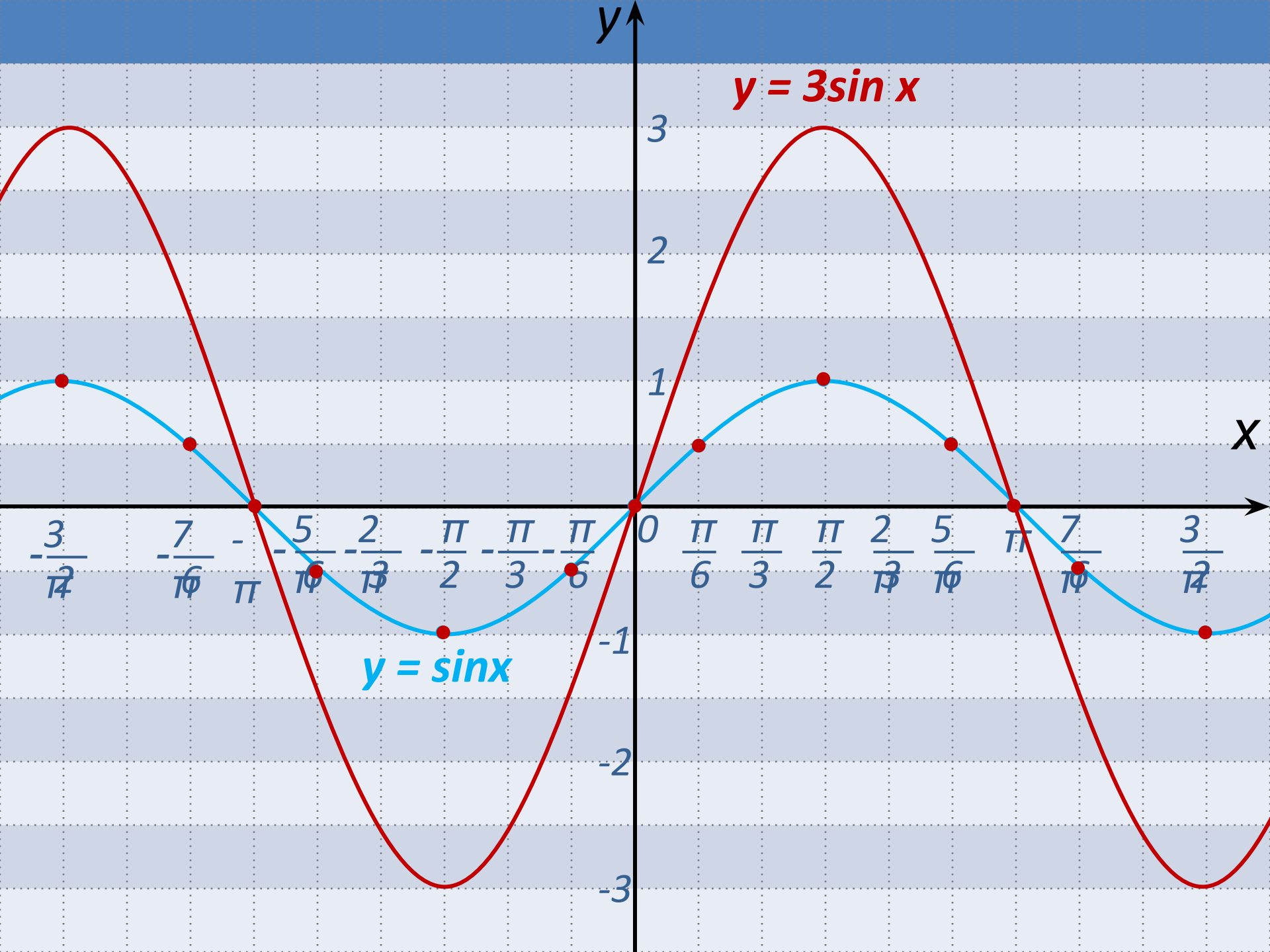


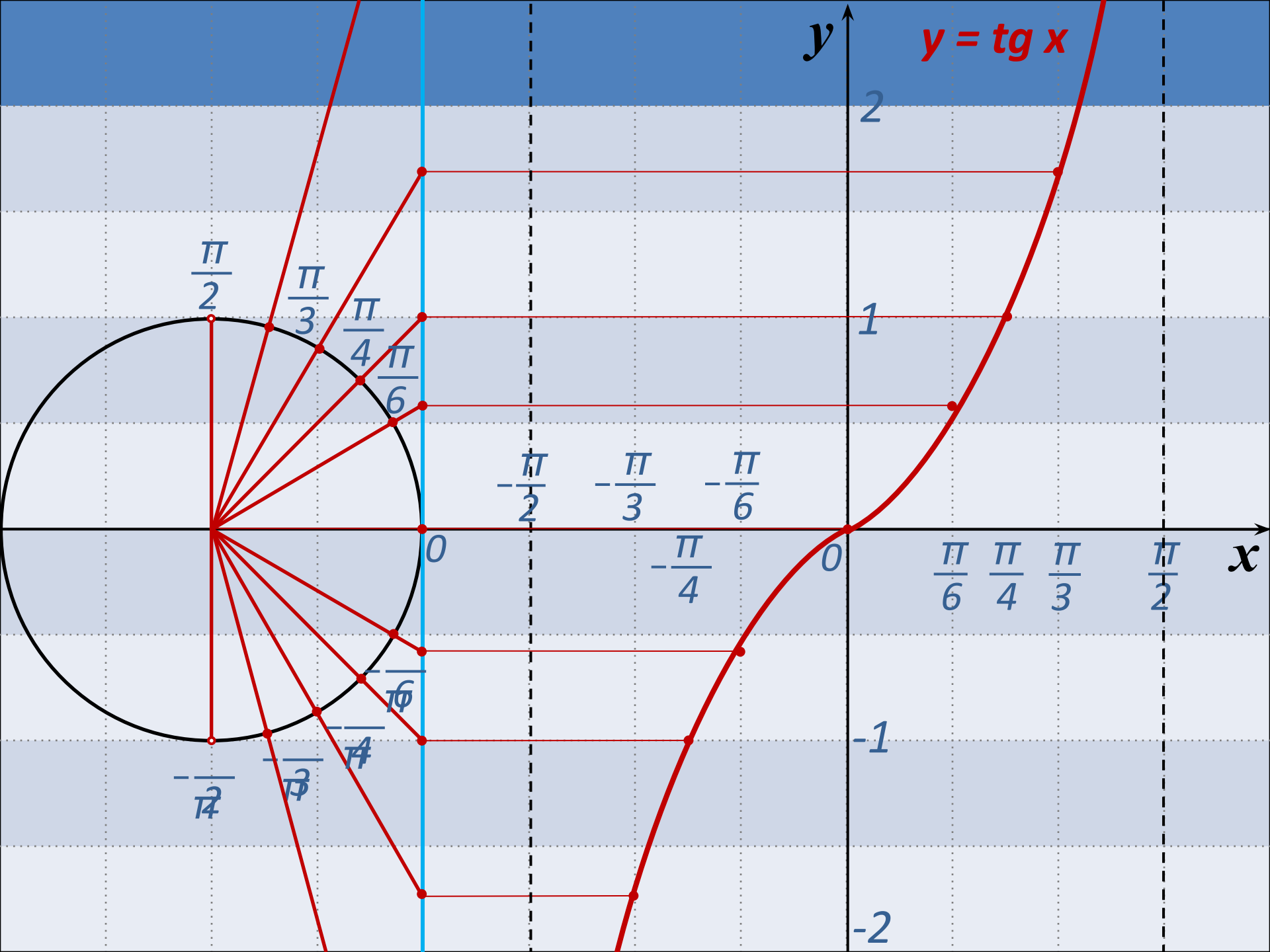
$y = \sin x$

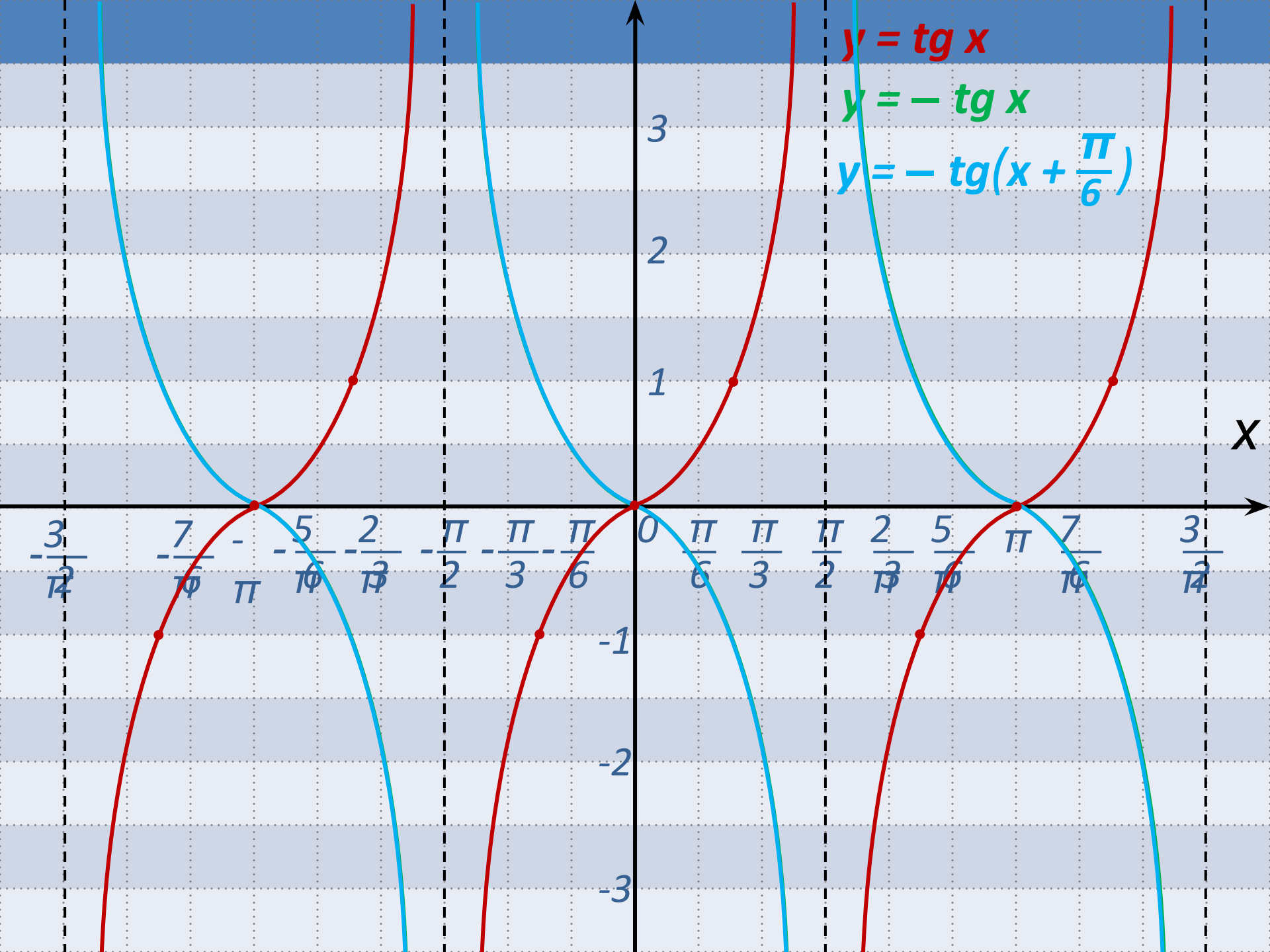
$y = \sin 2x$

$y = \sin 0,5x$





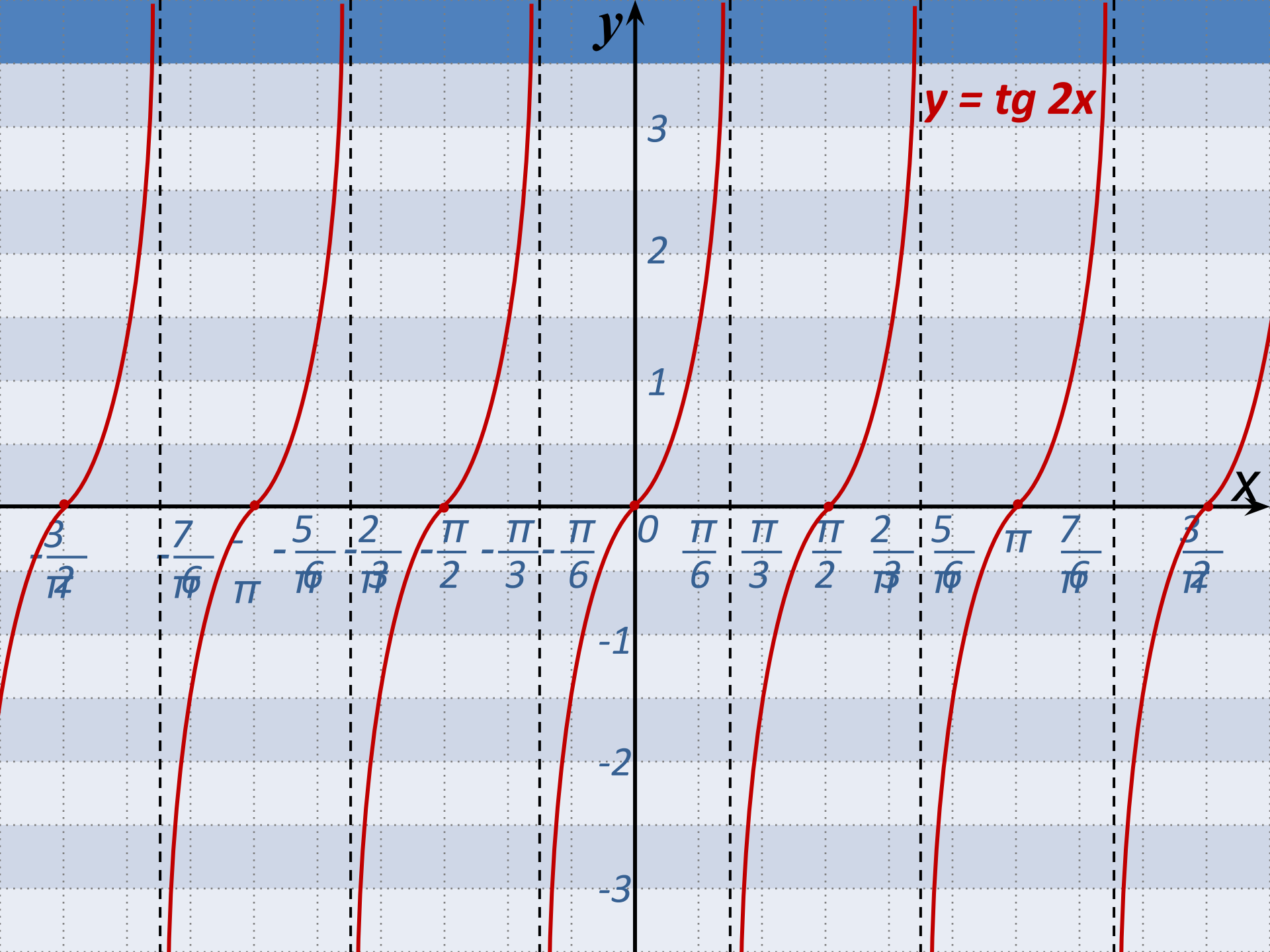


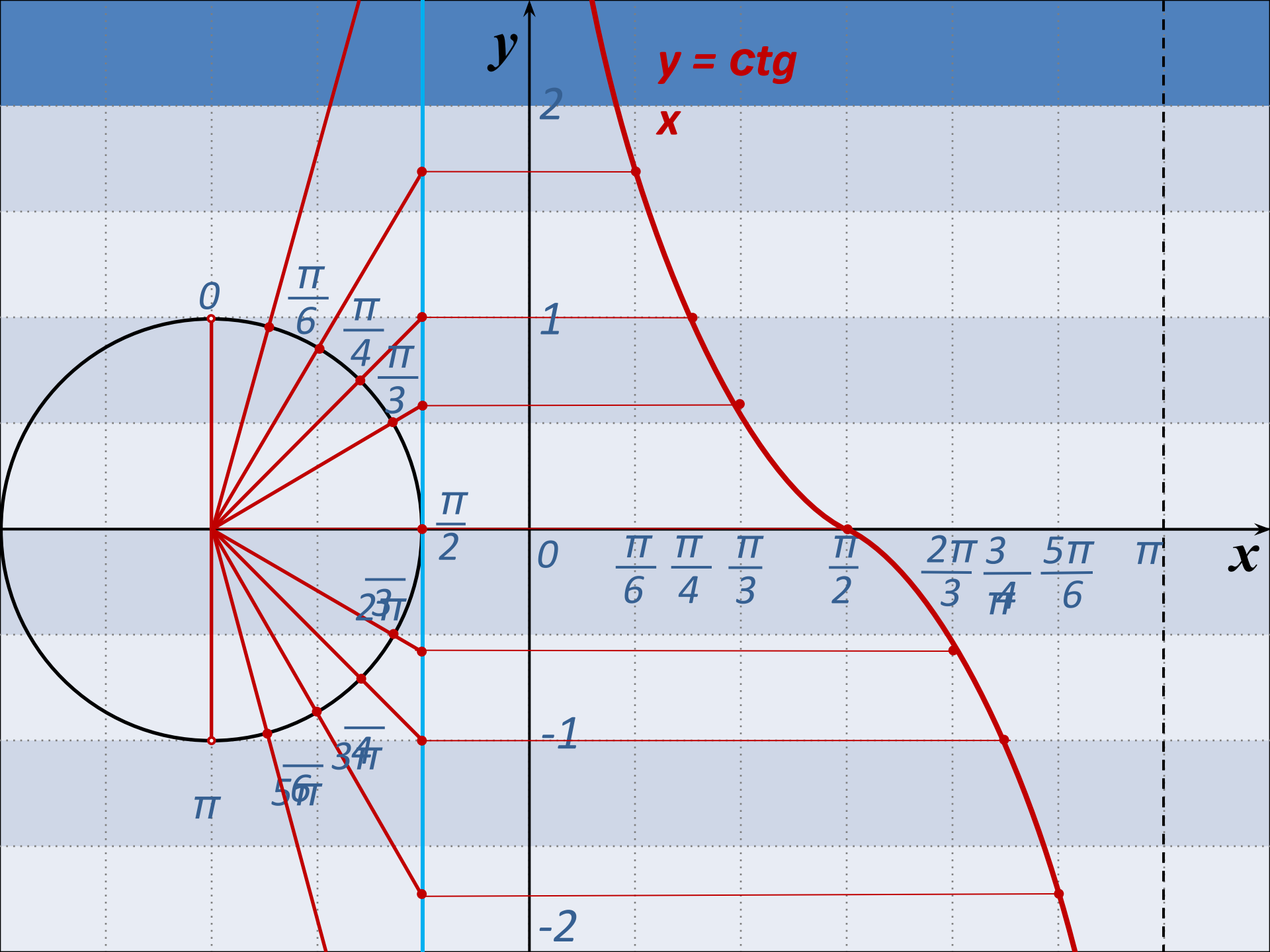


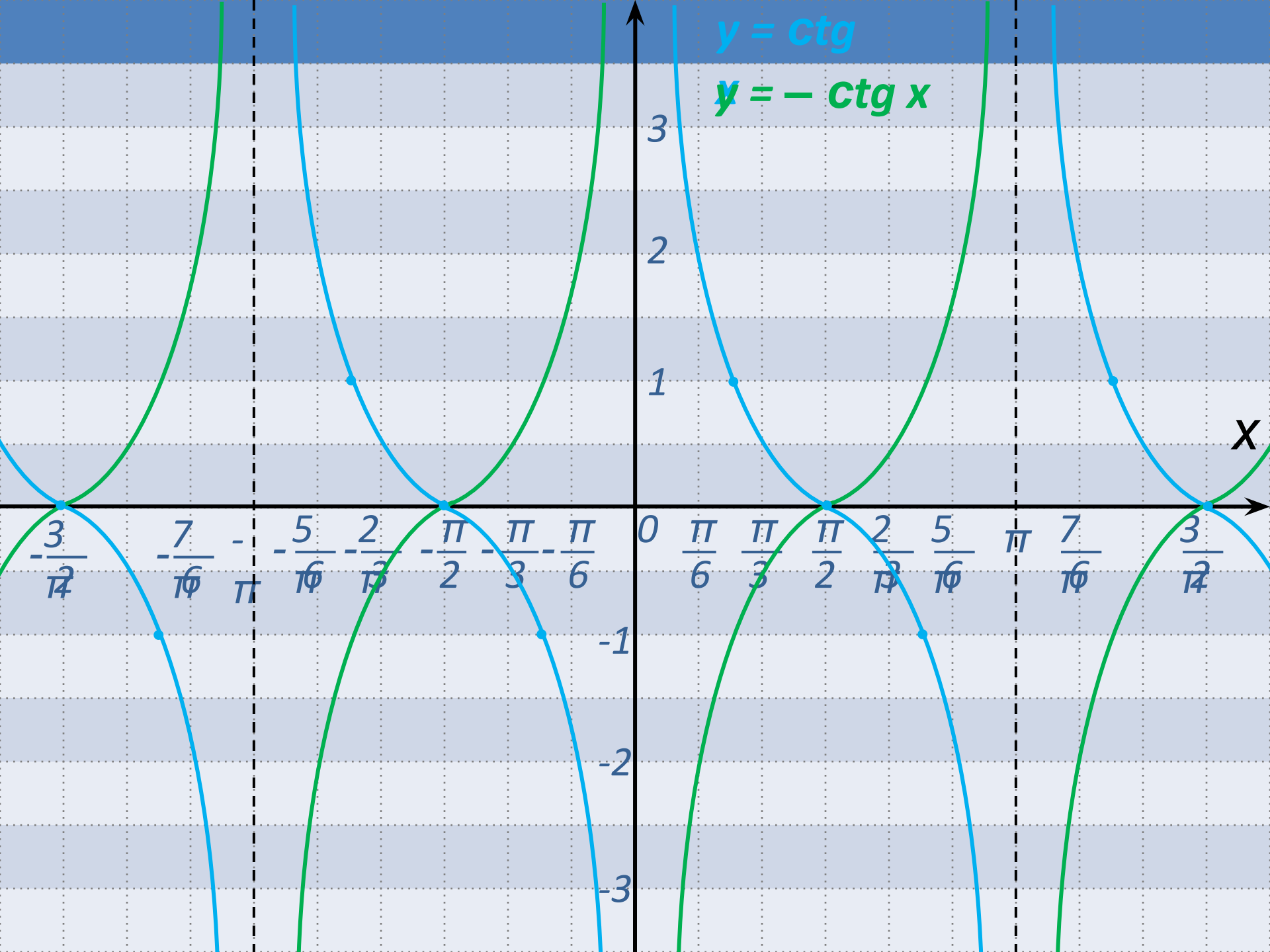
$$y = \operatorname{tg} x$$

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

$$y = -\operatorname{tg}(x + \frac{\pi}{6})$$

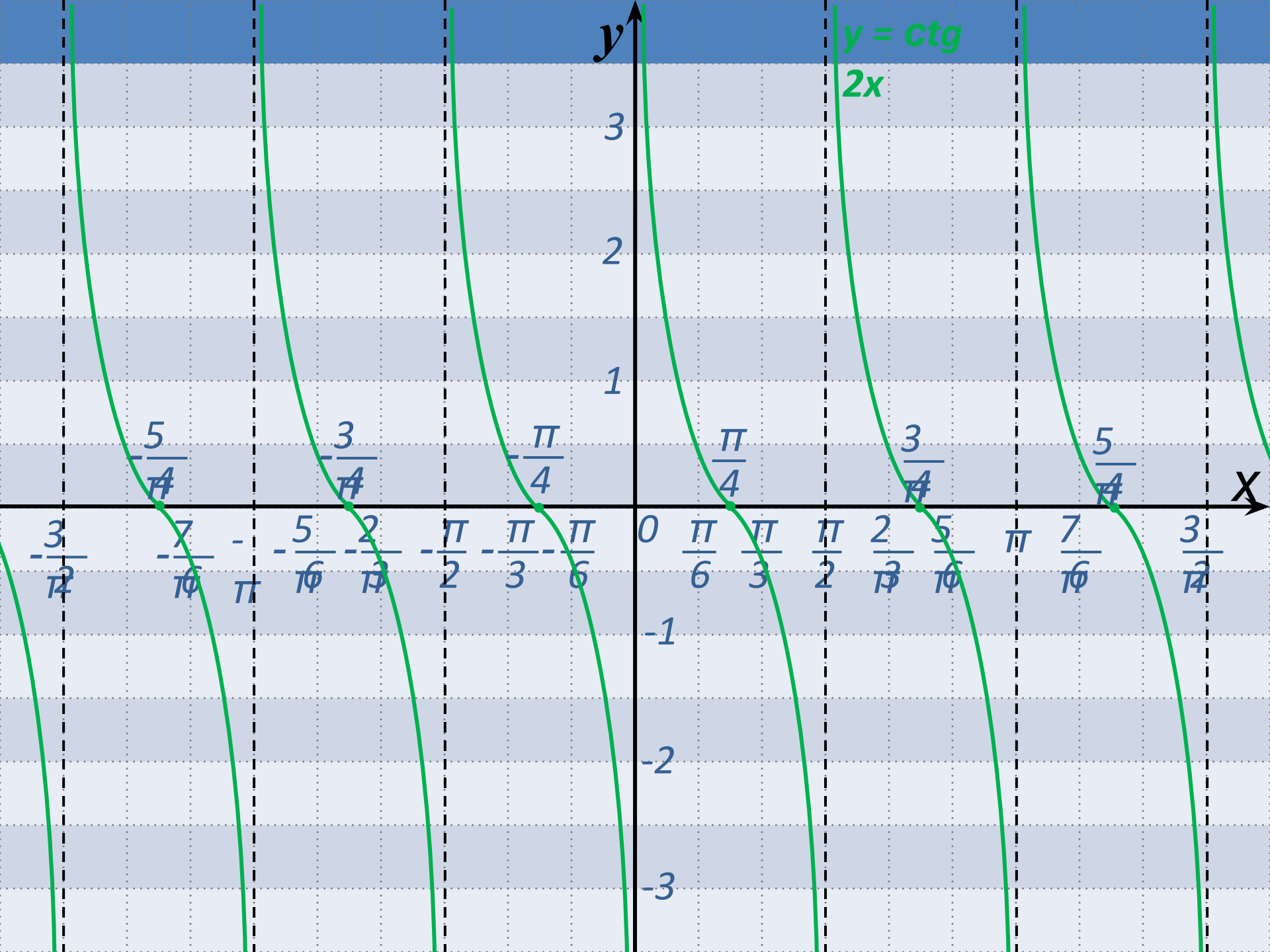






$$y = \text{ctg } x$$

$$y = -\text{ctg } x$$



y

$y = \text{ctg } 2x$

3

2

1

0

-1

-2

-3

$\frac{5\pi}{4}$

$\frac{3\pi}{4}$

$\frac{\pi}{4}$

$\frac{\pi}{4}$

$\frac{3\pi}{4}$

$\frac{5\pi}{4}$

$-\frac{3\pi}{12}$

$-\frac{7\pi}{16}$

π

$-\frac{5\pi}{16}$

$-\frac{2\pi}{12}$

$-\frac{\pi}{2}$

$-\frac{\pi}{3}$

$-\frac{\pi}{6}$

$\frac{\pi}{6}$

$\frac{\pi}{3}$

$\frac{\pi}{2}$

$\frac{2\pi}{3}$

$\frac{5\pi}{16}$

π

$\frac{7\pi}{16}$

$\frac{3\pi}{12}$

x