

TRANSFORMATIONS OF TRIG. FUNC.

Fri 24 May 2019

HORIZONTAL TRANSLATIONS

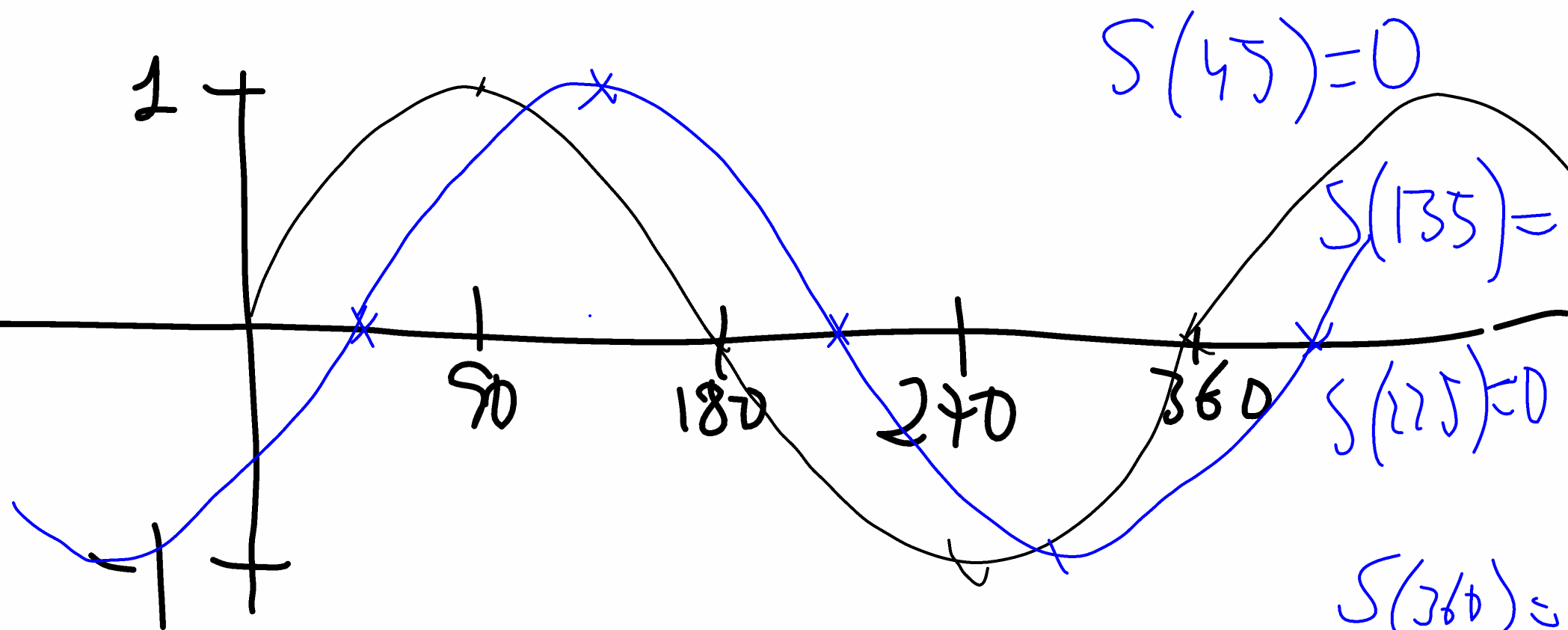
Example: In Geogebra, plot the following two func.

$$f(x) = \sin(x) \quad \& \quad g(x) = \sin(x - 45^\circ)$$

$$\begin{aligned} f(0) &= 0 \\ f(90) &= 1 \\ f(180) &= 0 \end{aligned}$$

$$f(270) = -1$$

$$f(360) = 0$$



$$g(45) = 0$$

$$g(135) = 1$$

$$g(225) = 0$$

$$g(315) = -1$$

$$\begin{aligned} g(0) &= \sin(-45) = -\sin(45) \\ &= -\frac{\sqrt{2}}{2} \approx -0.7071 \end{aligned}$$

$$g(90) = \sin(45) \approx 0.7071$$

$$g(180) = \sin(135) \approx 0.7071$$

$$g(270) = \sin(225) \approx -0.7071$$

