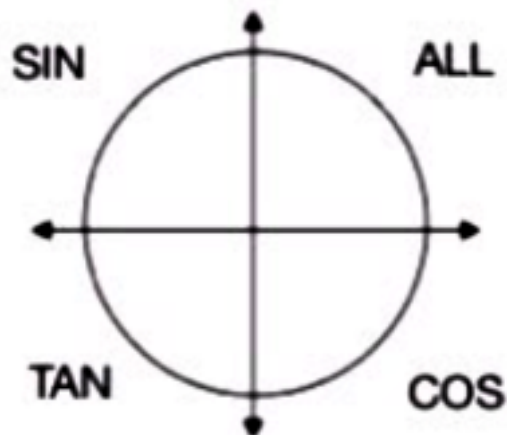
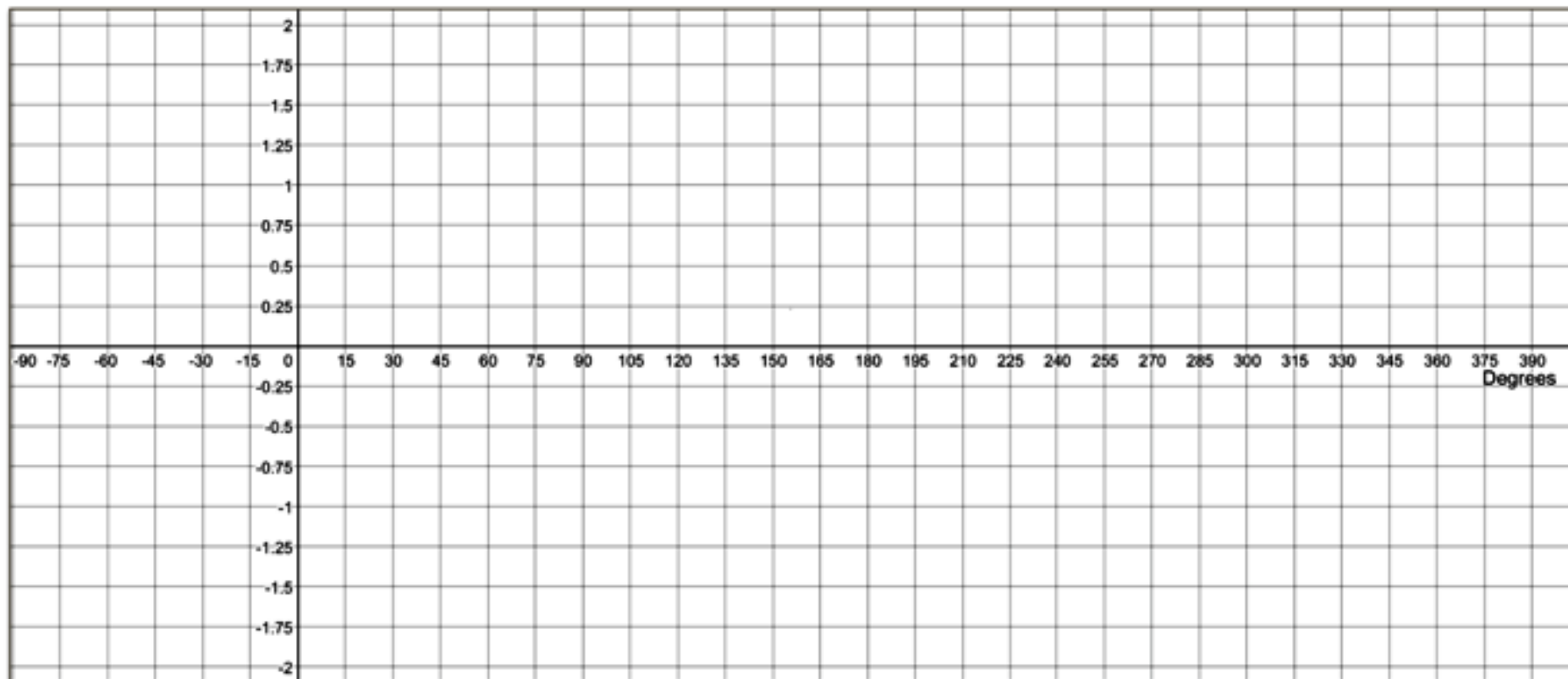


$$f(\theta) = \sin(\theta)$$

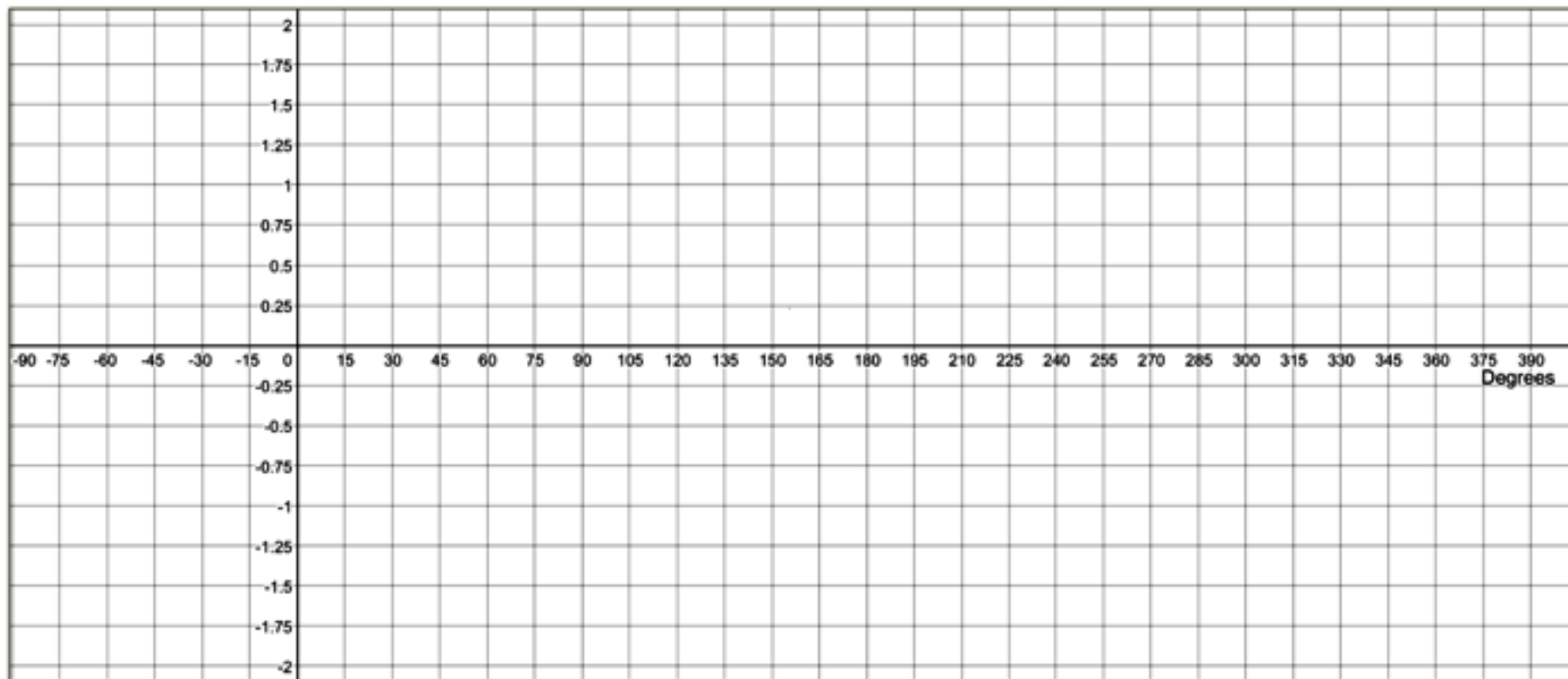


Quality of life estimates

$$\frac{\sqrt{2}}{2} \approx 0.7$$

$$\frac{\sqrt{3}}{2} \approx 0.9$$

$$f(\theta) = \sin(\theta)$$



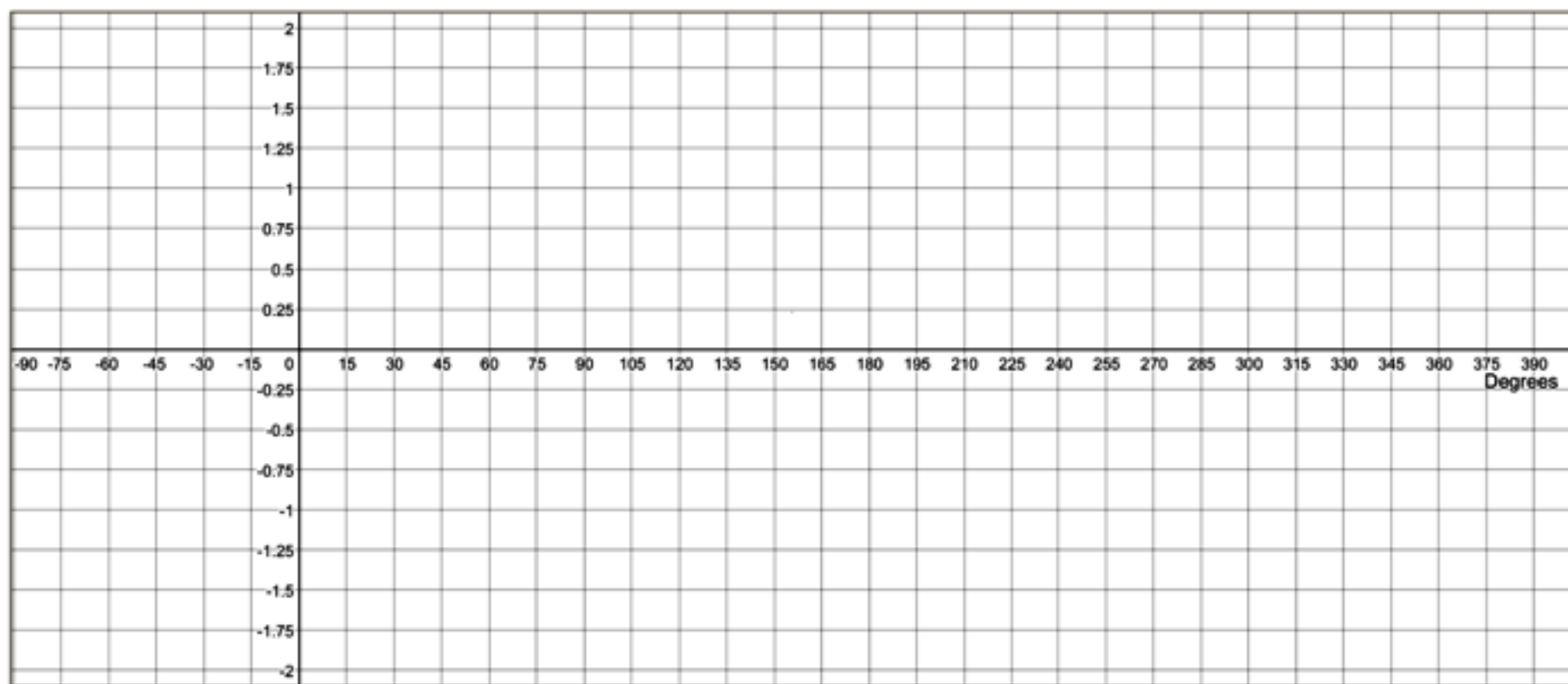
Amplitude is the distance between the center line of the function and the top or bottom of the function

$$f(\theta) = A \sin(\theta) \longrightarrow \text{Amplitude} = |A|$$

$$f(\theta) = 2 \sin(\theta) \longrightarrow$$

$$f(\theta) = -\frac{1}{2} \sin(\theta) \longrightarrow$$

$$f(\theta) = \sin(\theta)$$



Period is the distance it takes for the entire graph to repeat

$$f(\theta) = \sin(B\theta) \longrightarrow \text{Period} = \frac{2\pi}{B}$$

$$f(\theta) = \sin(2\theta) \longrightarrow$$

$$f(\theta) = \sin\left(\frac{1}{2}\theta\right) \longrightarrow$$