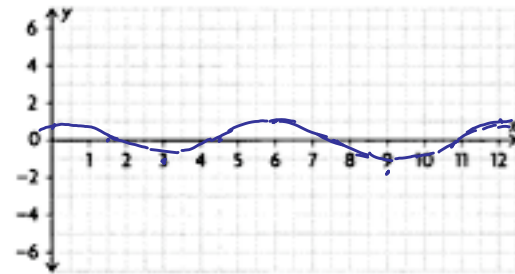
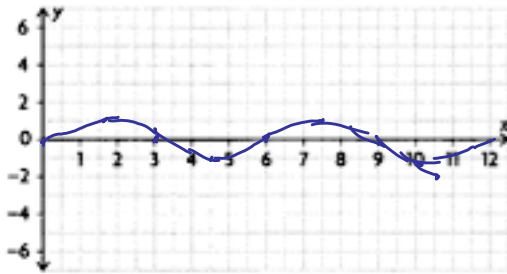
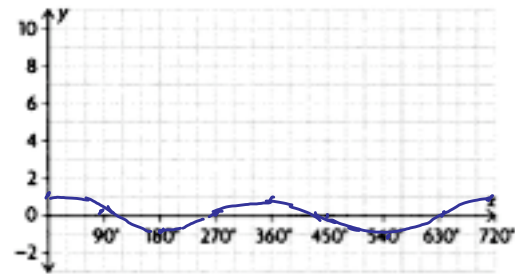
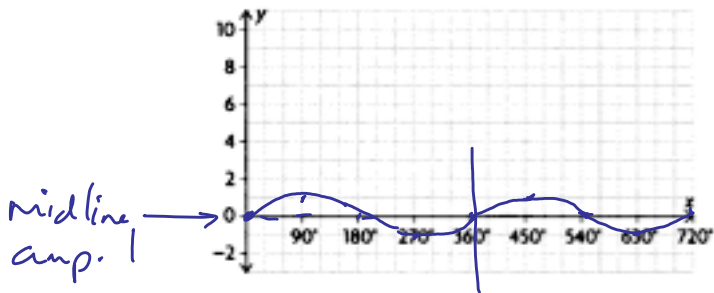


A function whose graph repeats in regular intervals or cycles is called a periodic function. The functions $y = \sin x$ and $y = \cos x$ are periodic. The graphs of these two periodic functions have common characteristics.

$$y = \sin x$$

$$y = \cos x$$



The horizontal line halfway between the maximum and minimum values of a periodic function is called a **midline**. The **amplitude** is the distance from the midline to either the maximum or minimum value of a periodic function. The amplitude is always expressed as a positive number. The length of the interval of the domain to complete one cycle is called the **period**.