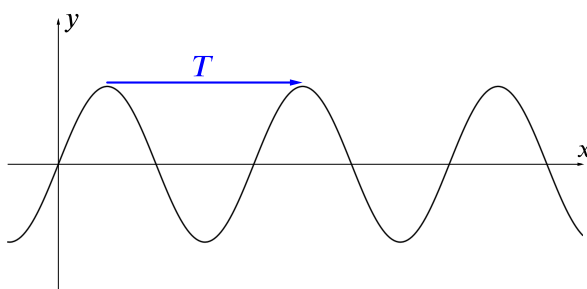


Periodic function

A function is called *periodic* if it repeats itself over and over again at regular intervals.

Formally, a function f is periodic with period T (where $T > 0$) if $f(x + T) = f(x)$ for all x . The smallest such positive T is called the *least period* (or often just “the period”) of the function. (If f is a constant function, then it is periodic with every possible period, but it doesn’t have a “least period”.)



For example, $\sin x$, $\cos x$ and $\tan x$ are all periodic. For $\sin x$ and $\cos x$, the (least) period is 2π , while for $\tan x$, the (least) period is π .