

PROBLEM:

The phase of a sinusoid can be related to time shift: $x(t) = A \cos(2\pi f_o t + \phi) = A \cos(2\pi f_o (t - t_1))$

In the following parts, assume that the period of the sinusoidal wave is $T = 1/10$ sec.

- (a) “When $t_1 = 1/5$ sec, the value of the phase is $\phi = -\pi$.”

Explain whether this is TRUE or FALSE.

- (b) “When $t_1 = -1/25$ sec, the value of the phase is $\phi = 2\pi/5$.”

Explain whether this is TRUE or FALSE.

- (c) “When $t_1 = 1/30$ sec, the value of the phase is $\phi = 2\pi/3$.”

Explain whether this is TRUE or FALSE.