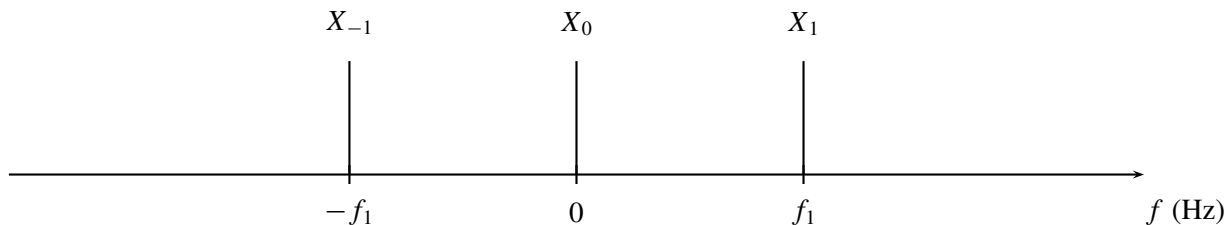## PROBLEM:

In each of the following parts, two different representations for a signal are given. Find the values of the parameters in the second representation so that the two representations are equivalent.

(a) A signal $x(t)$ is given by $x(t) = 4\cos(300\pi t - \pi/3)$, and its spectrum has the form

Determine the values for f_1, X_0, X_1, and X_{-1}. Note that the frequencies f are given in Hertz.

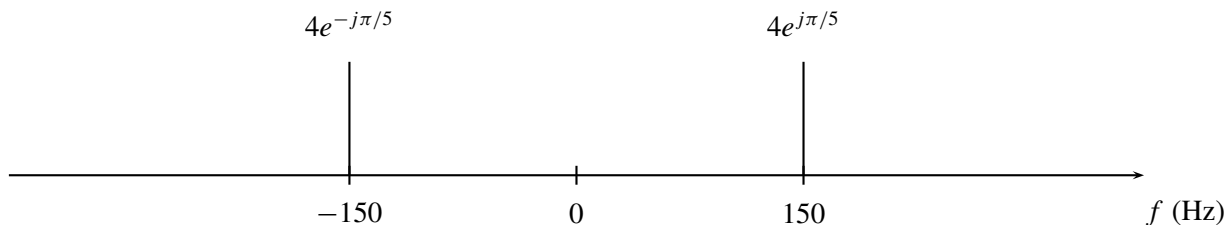$f_1 =$ $X_0 =$ $X_1 =$ $X_{-1} =$

(b) The spectrum of a signal $x(t)$ has the form

Therefore, the signal has the form

$$x(t) = A\cos(2\pi f_0(t - t_0))$$

Determine the values for A, f_0, and t_0,

$A =$ $f_0 =$ $t_0 =$