

PROBLEM:

The signal $x(t)$ is formed from the signal $v(t)$ by AM modulation. Assume that

$$v(t) = -2 + 2 \cos(6t - \pi/4)$$

and that

$$x(t) = v(t) \cos(30t).$$

- Draw the spectrum for $v(t)$. Your sketch should be clearly labeled and all complex amplitudes should be indicated.
- Draw the spectrum for $x(t)$. Your sketch should be clearly labeled and all complex amplitudes should be clearly indicated.