

Sketch the following waveforms and deduce the phase shift between them.

$$V=300\sin(\omega t+40)$$

$$i= 100\sin(\omega t-10)$$

These two waves have the same frequency. The phase shift between them:

$$\Delta\varphi = 40 - (-10) = 50\text{rad} \cong 6\text{rad} \cong 343^\circ$$

$50\text{rad} \cong 6\text{rad}$ due to period of 2π rad