

**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  $2\pi$  rad