Inductors

1.

There is a current $i = 5\sin 10t$ A through an inductance $L = 2\,\mathrm{H}$. What is the first instant of time after when the power entering the inductor is exactly:

(a) 100 W

(b) -100 W

2. The variation of current through a 25 mH inductor as a function of time is shown below, please find the voltage across the inductor.