Assignment:

1. An emf of voltage $E(t) = 120\cos 377t$ V is applied to the LRC circuit. Find the current and the charge given that $R = 25\,\Omega$, $L = 0.2\,H$, $C = 5\times10^{-4}\,F$ and $I(0) = 0\,(amps)$, $Q(0) = 1\,(coulombs)$