

P107 q 1

$$1) B = \frac{\Phi}{A} = \frac{Wb}{m^2} = Tesla.$$

(B is Tesla)

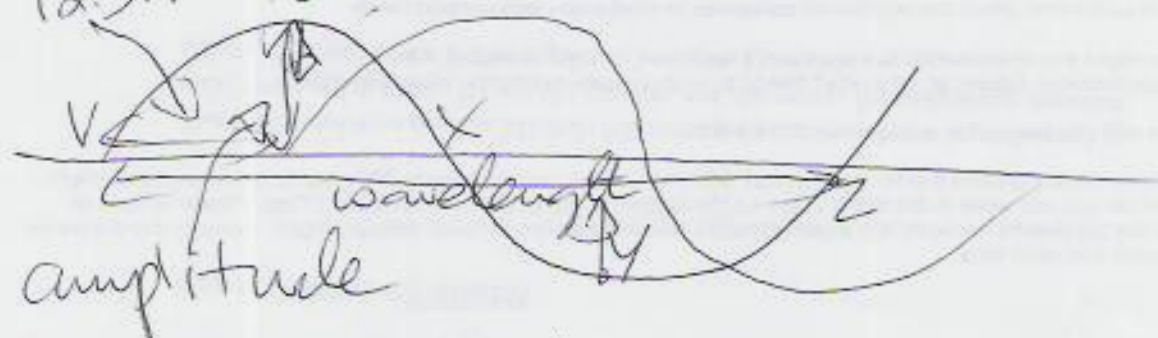
$$2) i) \frac{6 \times 10^{-4}}{300} = 2 \times 10^{-6} Wb.$$

$$ii) B = \frac{\Phi}{A} = \frac{6 \times 10^{-4}}{4 \times 10^{-5}} = 15 T$$

b) The dowel is not magnetic

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1) a) 12.5 mm = $\frac{1}{4}$ wavelength



W moves down
Y moves up.

c) W & Y are π out of phase
V & X are π out of phase
W & X, V & W, X & Y are $\pi/2$ out of phase.

Y & Z are $\pi/4$ out of phase.