

(1) : Magnetic field (at P) due to infinite wire at distance r is,

$$B = \frac{\mu_0}{4\pi} \times \frac{2I}{r}$$

$$\text{For wire } X: B_1 = \frac{\mu_0}{4\pi} \times \frac{2 \times 5}{(10 \times 10^{-2})}$$

$$\text{For wire } Y: B_2 = \frac{\mu_0}{4\pi} \times \frac{2 \times 4}{(4 \times 10^{-2})}$$

$$B_{\text{net}} = B_2 - B_1 = \frac{\mu_0}{4\pi} \times 2 \left[\frac{4}{0.04} - \frac{5}{0.1} \right]$$

$$B_{\text{net}} = 10^{-7} \times 2[50] = 1 \times 10^{-5} \text{ T}$$

So, $x = 1$