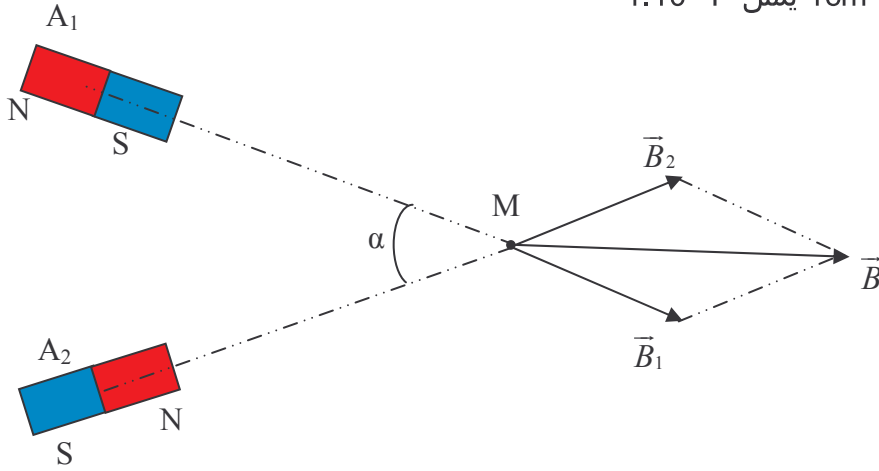


حل التمرين 06

1. سلم التمثيل 1cm يمثل $1.10^{-3}T$



2. ميانيا : $B = 4,4 \times 1.10^{-3} = 4,4.10^{-3}T$

3. حسابيا :

$$B^2 = B_1^2 + B_2^2 + 2B_1B_2 \cos \alpha$$

$$B_1 = B_2 \Rightarrow B^2 = 2B_1^2 + 2B_1^2 \cos \alpha$$

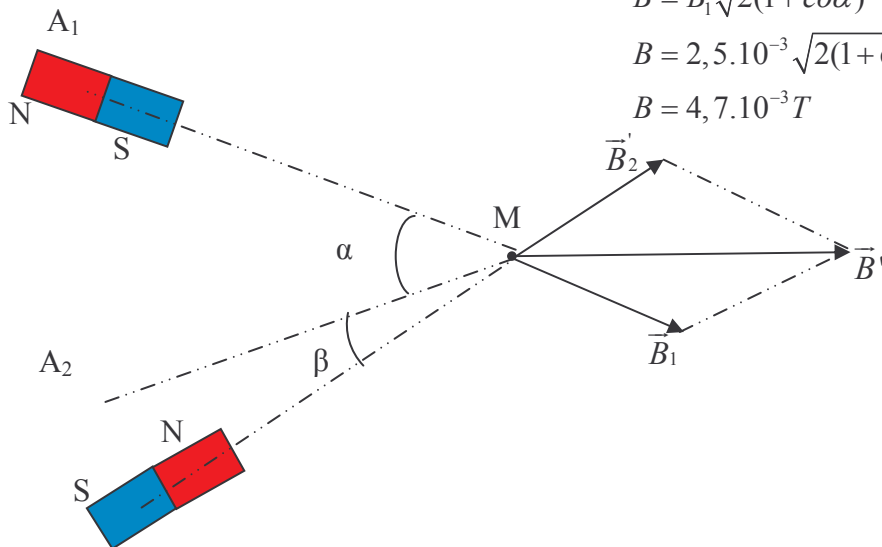
$$\Rightarrow B = B_1 \sqrt{2(1 + \cos \alpha)}$$

تطبيق عددي :

$$B = B_1 \sqrt{2(1 + \cos \alpha)}$$

$$B = 2,5.10^{-3} \sqrt{2(1 + \cos 40)}$$

$$B = 4,7.10^{-3}T$$



4.

$$B'^2 = B_1^2 + B_2'^2 + 2B_1B_2' \cos(\alpha + \beta)$$

$$B_1 = B_2' \Rightarrow B'^2 = 2B_1^2 + 2B_1^2 \cos(\alpha + \beta)$$

$$\Rightarrow \cos(\alpha + \beta) = \frac{B'^2}{2B_1^2} - 1$$

تطبيق عددي :

$$\alpha + \beta = 60^\circ \Rightarrow \beta = 20^\circ$$