Questão 4

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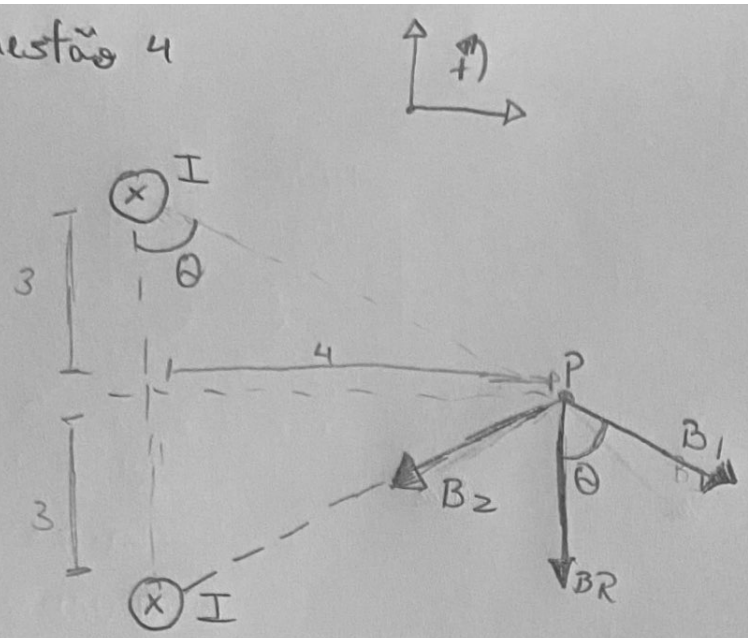
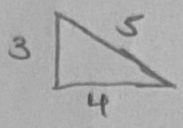
RA: 19.02466-5





$\mu_0 = 4\pi \cdot 10^{-7}$

$B = \frac{\mu_0 \cdot I}{2\pi R}$

$B_1 = \frac{4\pi \cdot 10^{-7} \cdot 4}{2\pi \cdot 5} = \frac{8 \cdot 10^{-7}}{5} = 1,6 \cdot 10^{-7}\ T$

$B_2 = \frac{4\pi \cdot 10^{-7} \cdot 4}{2\pi \cdot 5} = \frac{8 \cdot 10^{-7}}{5} = 1,6 \cdot 10^{-7}\ T$

Os campos em x se cancelam

$B_{Rx} = 0$

$B_{Ry} = -(1,6 \cdot 10^{-7} \cdot \cos\theta) \cdot 2$

$B_{Ry} = -2,56 \cdot 10^{-7}\ \vec{j}$

$B_R = 0 + (-2,56 \cdot 10^{-7}\ \vec{j})$

$\boxed{B_R = -2,56 \cdot 10^{-7}\ \vec{j}}$