

64. The radial segments do not contribute to \vec{B} (at the center) and the arc-segments contribute according to Eq. 29-9 (with angle in radians). If \hat{k} designates the direction "out of the page" then

$$\vec{B} = \frac{\mu_0 i (\pi \text{ rad})}{4\pi(4.00 \text{ m})} \hat{k} + \frac{\mu_0 i (\pi/2 \text{ rad})}{4\pi(2.00 \text{ m})} \hat{k} - \frac{\mu_0 i (\pi/2 \text{ rad})}{4\pi(4.00 \text{ m})} \hat{k}$$

where $i = 2.00 \text{ A}$. This yields $\vec{B} = (1.57 \times 10^{-7} \text{ T}) \hat{k}$, or $|\vec{B}| = 1.57 \times 10^{-7} \text{ T}$.