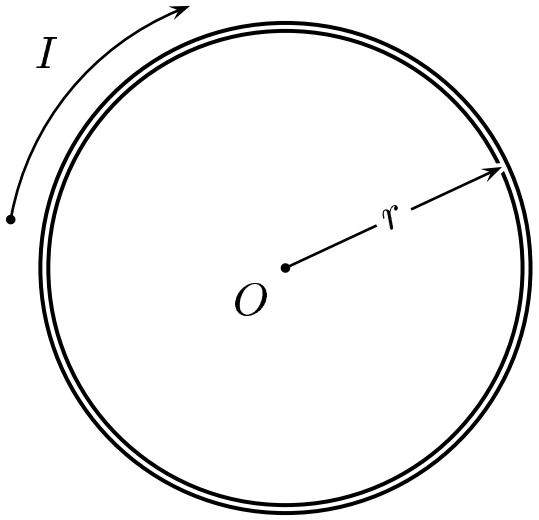
The loop has a current I and a radius r.



The direction of the magnetic field at the center is

A) in to the page.
B) out of the page.
C) to the left.
D) to the right.

By the Biot-Savart law, $\delta\vec{B} = \frac{\mu}{4\pi}\frac{\vec{r}\times I\delta\vec{L}}{r^3}$. Taking the cross product, one finds that for any current segment along the circle, the corresponding $\delta\vec{B}$ at center always points into the paper. So $\vec{B}$ due to the entire current loop should also point into the paper.

Answer **A**.

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