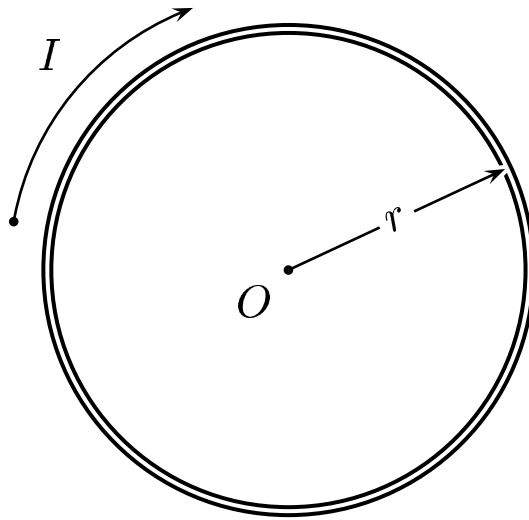


The loop has a current I and a radius r .



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**.