**Fancy solution:**

- Uniform magnetic field $\vec{B}$ points out of the plane.
- Magnetic force on segment $ds$: $dF = IBds = IBRd\theta$.
- Integrate $dF_x = dF \sin \theta$ and $dF_y = dF \cos \theta$ along semicircle.
- $F_x = IBR \int_0^\pi \sin \theta d\theta = 2IBR$,  
  $F_y = IBR \int_0^\pi \cos \theta d\theta = 0$. 

![Diagram of magnetic force on a semicircular current]