^{5.12} To find the vector potential at P due to a current-carrying wire we use $\vec{\mathbf{A}}(\vec{r}) = \frac{\mu_0}{4\pi} \int \frac{\vec{\mathbf{J}}(r')d\tau'}{|R|} \quad \text{or} \quad \vec{\mathbf{A}}(\vec{r}) = \frac{\mu_0}{4\pi} \int \frac{\vec{I}(r')dl'}{|R|}$

What is the *direction* of the infinitesimal contribution d**A**(P) created by current in d**I**?

- A) Up the page
- B) Directly away from dl(in the plane of the page)

Origin

P

- C) Into the page $\leftarrow I$ D) Out of the page dl
- E) Some other direction