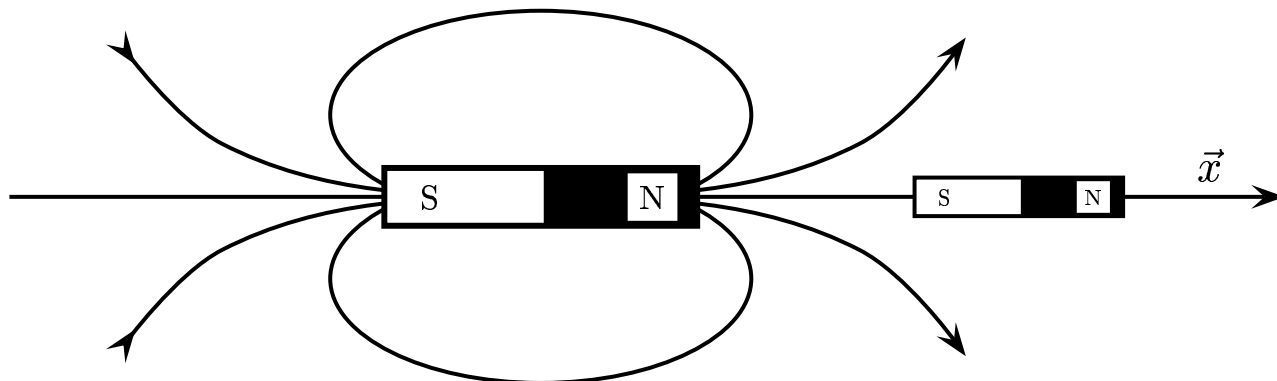


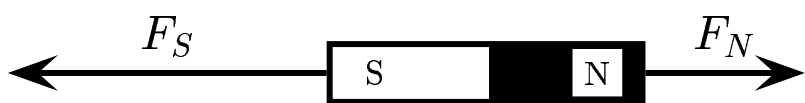
Consider a force which a magnetic dipole field asserts on a smaller magnetic dipole as shown below.



Find the sign of the x -component of the force on the magnetic dipole.

- A) $F_x = 0$, therefore the direction is uncertain.
- B) The direction is in the negative x direction \leftarrow .
- C) The direction is in the positive x direction \rightarrow .

Since the S-pole is closer, the field is stronger. $F_S > F_N$. The net force is pointing to left.



Answer B.

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