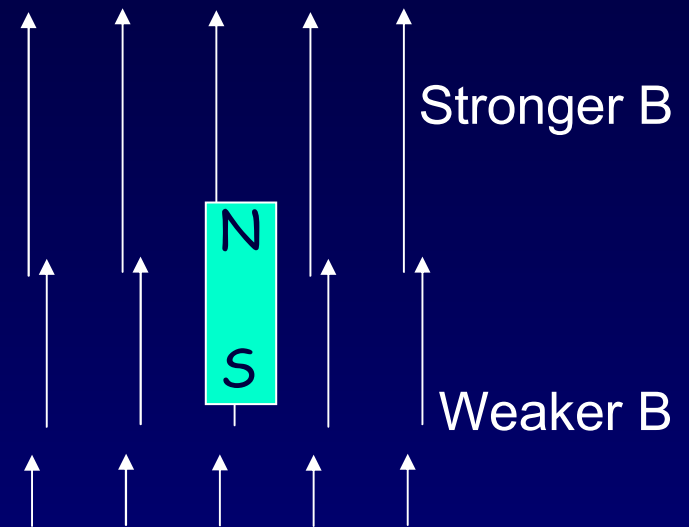


Solution

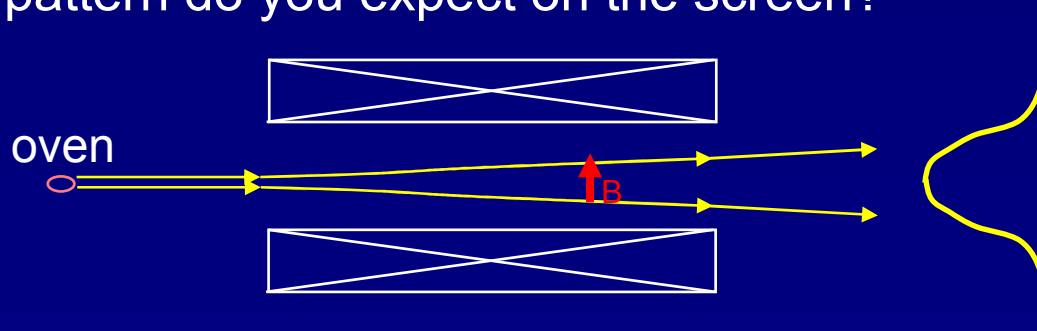
1. Consider a magnet in an inhomogeneous field, as shown. Which way will the magnet feel a force?

- a. Up
- b. Down
- c. Left
- d. Right
- e. No force

The N pole is in a stronger field than the S pole, so its upward force dominates.



2. The magnets (i.e., atoms) leave the oven with random orientations. What pattern do you expect on the screen?



We expect a blob, because the position depends on the random rotation angle.