




Quiz 5

1)⁶ For the coils and magnets below, answer the questions to the right, draw direction for the original and induced magnetic fields (B and B_{ind}) and current in the front of the coil (up or down).

		Direction of magnet's field: ← → Change in flux at coil: ↑ ↓ Direction of induced field: ← → Direction of current in G: ← →
		Direction of magnet's field: ← → Change in flux at coil: ↑ ↓ Direction of induced Bfield: ← → Direction of current in G: ← →
		Direction of coil 2's field: ← → Change in coil 2's flux: ↑ ↓ Direction of induced Bfield: ← → Direction of current in G: ← →

Coils are stationary, switch in 2 is closed.

2)⁴ Explain the right hand rules:

example) The force on a charged particle moving in a magnetic field:

Place your fingers along the velocity in the direction of motion and curl them to point along B . Your thumb then points in the direction of the force on a positive charge

a)² The force on a current segment in a magnetic field ($F = IL \times B$)

b)² The magnetic field of a current loop

