

Electromagnetism – Pre Quiz Assessment #1

Name: _____

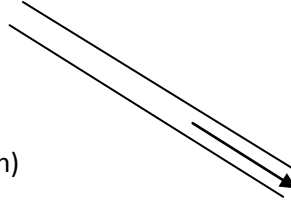
Date: _____

1. Use your right-hand rules to complete the following:

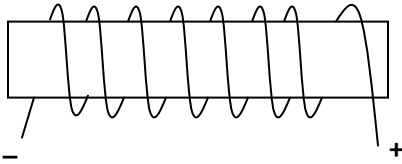
Determine current direction



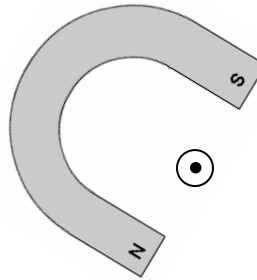
Determine the magnetic field around the wire



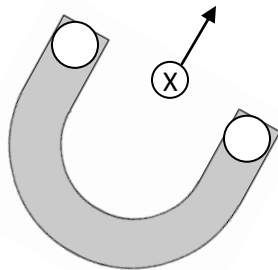
Determine the N/S Pole (also show current direction)



Determine the force direction



Determine the poles of the magnet



2. A transformer is intended to plug into a standard 120 V outlet with a current of 30 A and provide power to a 240 V electric motor. If the secondary coil has 300 turns, how many turns are required on the primary side of the transformer? Is this an example of a step-up or step-down transformer? What is the current in the motor? What is the resistance in the electric motor?