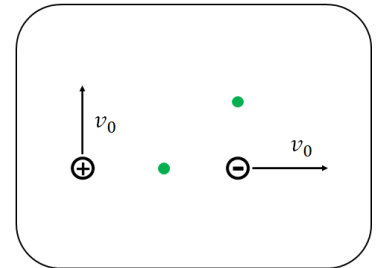
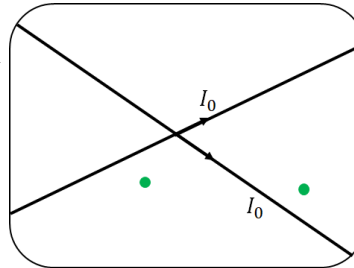


Physics 203 Ecampus

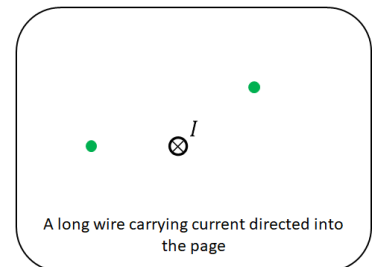
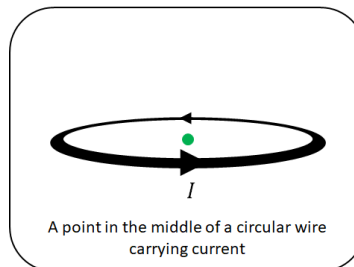
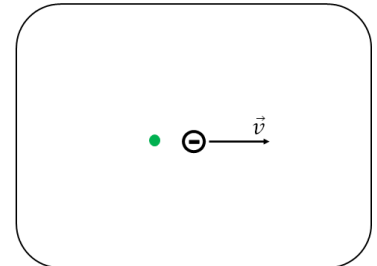
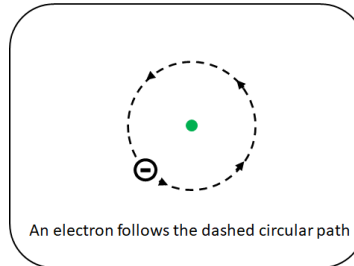
Individual Quizbit | Magnetic Fields and Circuits

Timed Quizbit | Work individually to produce a handwritten solution on paper or a tablet to **questions 1** of this Quizbit during the timed 30-minute Gradescope assignment *Timed Quizbit*. The quality of your solution and communication is far more important than the final answer!

1. There are six separate situations pictured. For each dot (green) in each situation, clearly indicate which direction the magnetic field will point. If the magnetic field will be zero, then clearly indicate that.

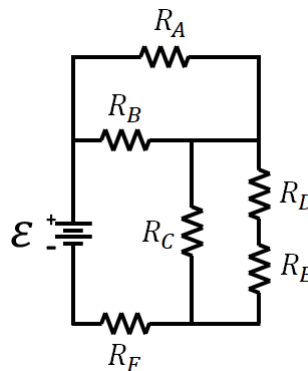


2. Which of the following quantities are scalars? (Hint: there are 4 correct answers)
- (a) Position
 - (b) Displacement
 - (c) Electric Field
 - (d) Electric Potential Energy
 - (e) Magnetic Field
 - (f) Electric Force
 - (g) Resistivity
 - (h) Electric Potential Field
 - (i) Current



Final Solution and Sensemaking | After you've completed and submitted question 1 and 2 to the timed Gradescope assignment, take more time to create a final solution set to all the questions. Use any of the course support systems (LAHHH, Teams, WormHole, ... etc.) to produce the best solutions. Submit your work to the **Final Solution** Gradescope assignment by Sunday. Your final work will be graded on both completeness and correctness.

3. The pictured circuit is constructed using six identical 1Ω resistors.
- (a) Find the equivalent resistance of the circuit.
 - (b) The battery is a 13 V battery. Find the current flowing through resistor C.



Hints:

$$\Delta V = IR$$

$$\frac{1}{R_{eq}} = \frac{1}{R_1} + \frac{1}{R_2} + \dots$$

$$R_{eq} = R_1 + R_2 + \dots$$