

## PHYSICS 232 Quiz #1

1. If the battery in the circuit below has a potential of +12 V and the resistor has a value of 20  $\Omega$ , what current flows in the circuit?

$$I = V/R = 12 \text{ V}/20 \Omega = 0.6 \text{ A}$$

- a) 12 A
- b) 20 A
- c) **0.6 A**
- d) 1.67 A
- e) 240 A

2. In the wires to a speaker playing music, what is a typical drift speed for a free electron?

- a) 186,000 miles/sec
- b) 1000 miles/sec
- c) 1 mile/sec
- d) 1 foot/sec
- e) **1 inch/minute**