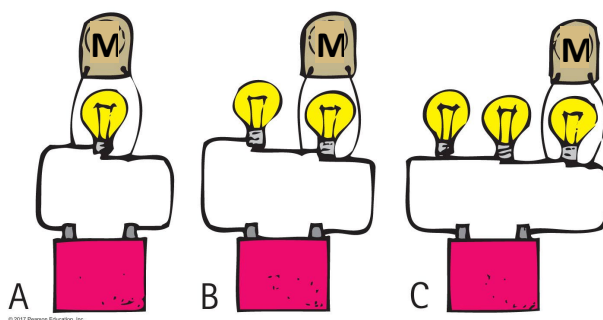


Astronomy Ranking Task: Ohm's Law

Exercise #6

Description: There are three circuits, labeled A – C, each with one battery, one branch for current to follow, a meter labeled “M”, and the number of bulbs as shown. The bulbs are all identical, as are the batteries. Assume the batteries have no internal resistance and the meters do not affect *anything*.



A. Ranking instructions: Rank the amounts of voltage across each meter.

Ranking Order: Greatest 1 _____ 2 _____ 3 _____ Least

Or, each meter has the same amount of voltage across it. _____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

B. Ranking instructions: Rank the currents through the meters.

Ranking Order: Greatest 1 _____ 2 _____ 3 _____ Least

Or, each meter has the same current through it. _____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

C. Ranking instructions: Rank the resistances of the bulbs underneath the meters.

Ranking Order: Greatest 1 _____ 2 _____ 3 _____ Least

Or, each indicated bulb has the same resistance. _____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

D. Ranking instructions: Rank the amounts of power dissipated by the bulbs underneath the meters.

Ranking Order: Greatest 1 _____ 2 _____ 3 _____ Least

Or, each indicated bulb dissipates the same amount of power. _____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:
