Astronomy Ranking Task:
Ohm's Law

Exercise #3

Description: There are four circuits, labeled A – D, each with one battery, one branch for current to follow, and one resistor. The resistances and amounts of current in the branches are as indicated below.

A: 15 Ω & 8 A   **C:** 24 Ω & 5 A

B: 44 Ω & 5 A   **D:** 36 Ω & 0.25 A

A. Ranking instructions: Rank the voltages across each resistor.

Ranking Order: Greatest   1 _____   2 _____   3 _____   4 _____   Least

Or, the voltage across each circuit's resistor is the same. ____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

_____

_____

_____

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B. Ranking instructions: Rank the amounts of power dissipated by the resistors.

Ranking Order: Greatest   1 _____   2 _____   3 _____   4 _____   Least

Or, each resistor dissipates the same amount of power. ____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

_____

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