Astronomy Ranking Task:  
Luminosity of Stars

Exercise #1

Description: Imagine you are comparing the five electric hot plates (A – E) of different sizes and temperatures. The temperature of each hot plate is indicated by a shade of gray such that the lighter the shade of gray, the higher the temperature of the hot plate.

A. Ranking instructions: Rank the surface area (from largest to smallest) of the hotplates.

Ranking Order: Largest 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ Smallest

Or, all the hotplates have the same surface area. _____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

B. Ranking instructions: Rank the temperature (from hottest to coldest) of the hotplates.

Ranking Order: Hottest 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ Coldest

Or, all the hotplates have the same temperature _____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
C. **Ranking instructions:** Rank the total energy output or luminosity (from greatest to least) of the hotplates.

**Ranking Order:** Greatest 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ Least

Or, all the hotplates have the same energy output or luminosity. _____ (indicate with a check mark)

**Carefully explain** your reasoning for ranking this way:

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