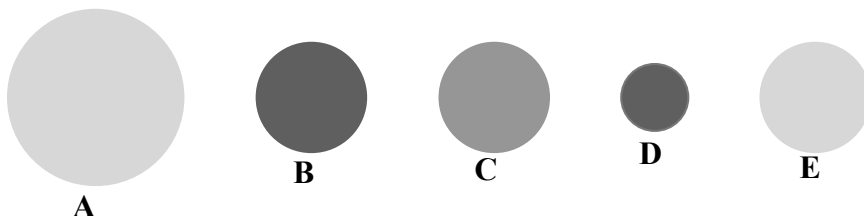


Astronomy Ranking Task: Luminosity of Stars

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:
