

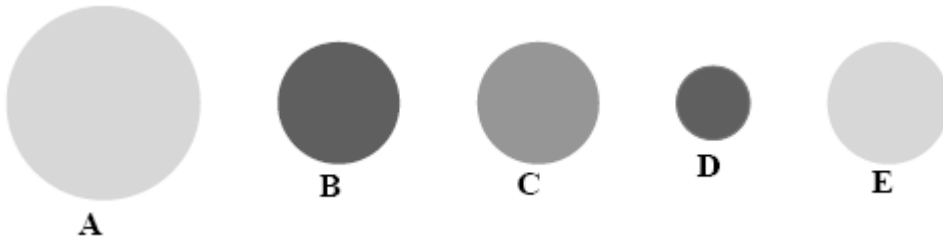
Name: \_\_\_\_\_

## Astronomy Ranking Task: Luminosity of Stars

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### 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:

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**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:

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**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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