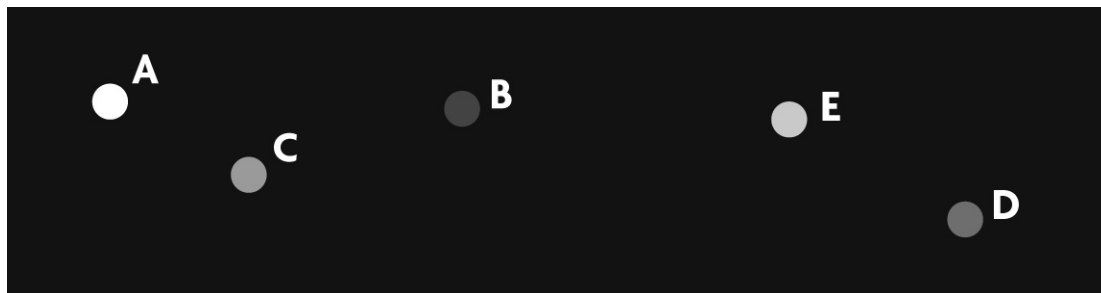


# Astronomy Ranking Task: Apparent and Absolute Magnitude

## Exercise #2

**Description:** The figure below shows five stars (A - E) as they appear in the night sky from Earth. A darker shading is used to indicate the appearance of a dimmer star. Note that star B is shown the darkest, followed by D, C, E, and A.



**A. Ranking Instructions:** Rank the brightness (from greatest to least) of each star as it appears in the night sky.

**Ranking Order:** Greatest 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ Least

Or, the brightness of each star would appear the same. \_\_\_\_\_ (indicate with check mark).

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

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**B. Ranking Instructions:** Rank the numerical value (from greatest to least) for each star's apparent magnitude.

**Ranking Order:** Greatest 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ Least

Or, the apparent magnitude number would be the same for each star. \_\_\_\_\_ (indicate with check mark).

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

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**C. Ranking Instructions:** Rank the distance (from greatest to least) of each star from Earth.

**Ranking Order:** Greatest 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ Least

Or, the distance from Earth cannot be determined from this information. \_\_\_\_\_ (indicate with check mark).

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

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