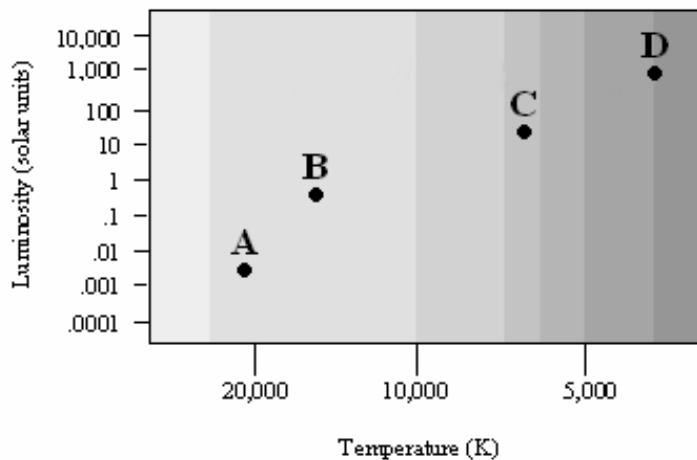


Astronomy Ranking Task: Luminosity of Stars

Exercise #4

Description: Consider the Hertzsprung-Russell (HR) diagram shown below which relates the luminosity (in solar units) to the temperature for four stars (A - D).



A. Ranking instructions: Rank the temperature of the stars (A - D) from hottest to coldest.

Ranking Order: Hottest 1 ____ 2 ____ 3 ____ 4 ____ Coldest

Or, all the stars have the same temperature. ____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

B. Ranking instructions: Rank the luminosity of the stars (A - D) from greatest (brightest) to least (dimmiest).

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

Or, all the stars have the same luminosity. ____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

C. Ranking instructions: Rank the surface area of the stars (A – D) from largest to smallest.

Ranking Order: Largest 1 ____ 2 ____ 3 ____ 4 ____ Smallest

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

Carefully explain your reasoning for ranking this way:
