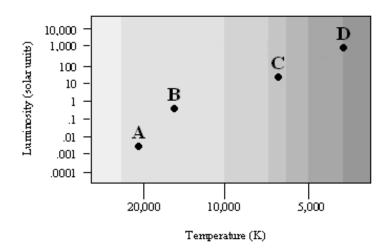
Astronomy Ranking Task: Luminosity of Stars

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. Kanking instru	ictions: Rank t	ne temperatu	ire of the	stars $(A - D)$ from noticest to cold
Ranking Order: I	Hottest 12	2 3	_ 4	Coldest
Or, all the stars hav	e the same temp	perature	(indic	cate with a check mark)
Carefully explain	your reasoning	for ranking t	his way:	
B. Ranking instruleast (dimmest).	ctions: Rank th	he luminosity	y of the st	ears (A – D) from greatest (brighte
Ranking Order: (Greatest 1	23_	4	Least
Or, all the stars hav	e the same lumi	inosity	(indica	ate with a check mark)
Carefully explain	your reasoning	for ranking t	his way:	

C. Ranking instructions: Rank the surface area of the stars $(A - D)$ from largest to sm	allest
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:	