

Stellar Lives

Turn in one copy of this lab with each group member's printed name and signature. By signing, you certify that you have actively participated in the exercise and have put forth effort in equal share to your fellow group members.

Printed Name

Signature

Questions

1. What spectral type (the letter: O, B, A, etc) are *most* of the nearest stars?
2. Are these stars intrinsically bright or faint?
3. A person can only see stars brighter than 6th magnitude. What does this say about the number of stars that exist versus the number that we can see? Be detailed in your answer (i.e. a few sentences, not a short fragment)
4. Look at the luminosity class (roman numeral) of the brightest stars. Do they tend to be evolved stars (giants & supergiants) or main sequence stars?
5. How do the positions on the H-R diagram of the brightest stars and the nearest stars compare? Is there much overlap?

6. Look at the distances of the brightest stars. Do they all have similar distances? How much do the distances and absolute magnitudes vary? Are they different from the distances to the nearest stars?

7. Given your answer to number 6, which sample of stars (Brightest or Nearest) do you think are representative of the stars in the galaxy? Why?

8. Compare your diagram to the H-R diagram handed out. Are there any gaps in yours? What types of stars might be missing? Why?