

Project: Visual Binary Systems

1. What colors are the two stars? Indicate which is which on your drawing.
2. Based on their colors, which one is hotter (indicate by color)?
How do you know this?
3. How do the brightnesses of the two stars compare? Which (if either) star is brighter?

The brightness of an object depends both on how much energy it emits over time (its luminosity) and how far away it is.

4. Given that the two stars are binary stars (i.e., are gravitationally bound to each other), what can you say about their relative luminosities? Explain your reasoning.
5. Is this consistent with what you would expect, based on their temperatures as stated above?
If so, explain why.
If not, can you explain the discrepancy (what else about the star could effect how much light it gives off)?