

HR Diagram

The nearest stars (\square) represent stars within 15 LY. The brightest stars (X) represent stars with apparent magnitude less than 2.0 magnitudes.

1. Look at the HR Diagram on the next page. Considering both the nearest and the brightest stars, to which group (main sequence, giant, dwarf) on the HR Diagram do most stars belong?
2. How is the spectral type of a star determined?
3. What important property does spectral type also indicate?
4. If we could sample all of the stars within 200 LY, do you think the sample would resemble the nearest stars or the brightest stars more closely? Explain your reasoning.
5. Given the HR Diagram, what would be your guess as to the longest lived phase of a stars life? (main sequence, red giant, supergiant, or white dwarf)

The H-R Diagram of the Nearest and Brightest Stars

