

Stars

GLE 0607.6.1 Analyze information about the major components of the universe.

GLE 0607.Inq.2 Use appropriate tools and techniques to gather, organize, analyze, and interpret data.

GLE 0607.Inq.3 Synthesize information to determine cause and effect relationships between evidence and explanations.

Lower magnitude values are brighter than higher magnitude values. Distances in the table are measured from Earth. Use the table to the right to answer the following questions. Be sure to explain your answer by citing evidence from the data.

Star	Apparent Magnitude	Absolute Magnitude	Distance in Light-Years
A	-26.0	4.8	0.0002
B	-1.5	1.4	8.7
C	0.1	4.4	4.3
D	0.1	-7.0	815
E	0.4	-5.9	520
F	1.0	-0.6	45

1. Which star appears the brightest from Earth?
2. Which star would appear brightest if all the stars were viewed from a distance of 10 light years?
3. Which star in the table is the Sun?
4. How is it possible for Star C and Star D to have the same apparent magnitude but different distances from Earth?