Phys 102 Astronomy

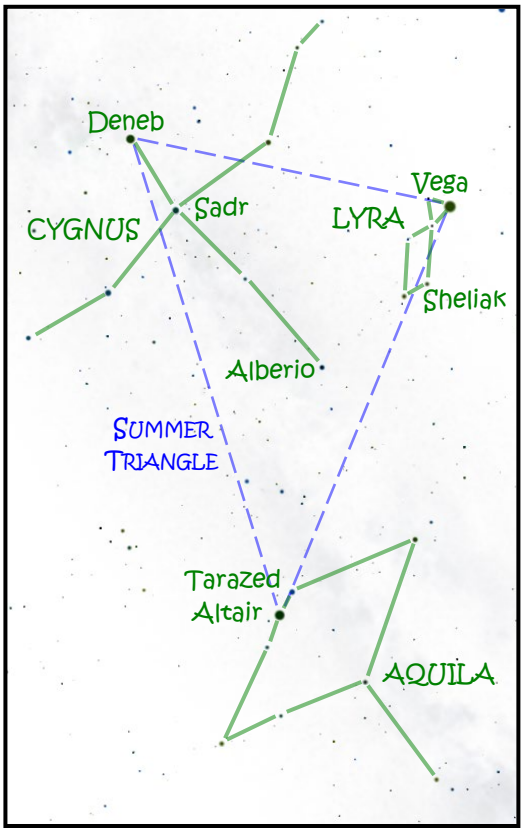
Name Solution

STAR DISTANCES AND MAGNITUDES

1)[33] For the Summer Triangle stars below, complete the table[24] **and label the diagram with star and constellation names**[9] (looking straight up from SLU at 10 pm on August 26) by using Appendix 2, pp. 514-526, and Atlas Charts 18, 19 & 31 in the *Field Guide*.

Apx. 2 in order of RA

BAYER DESIGNATION	RA	VISUAL MAGNITUDE (V)	ABSOLUTE MAGNITUDE (M_V)	DISTANCE (ly)	OTHER NAME
α Cyg	20^h41^m	1.25	-7.5	1467	Deneb
β Cyg	19^h31^m	3.08	-1.5	385	Alberio
γ Cyg	20^h22^m	2.20	-4.1	522	Sadr
α Lyr	18^h37^m	0.03	0.6	25	Vega
β Lyr	18^h50^m	3.4	-4.1	881	Sheliak
α Aql	19^h51^m	0.77	2.1	17	Altair
γ Aql	19^h46^m	2.72	-2.6	326	Tarazed



Learn the stick figures for Cygnus, Lyra, and Aquila.

2)[6] List the stars in the table in order of distance from the sun. (**Use the "Other Name"**)

NEAREST						FARTHEST
Altair	Vega	Tarazed	Alberio	Sadr	Sheliak	Deneb

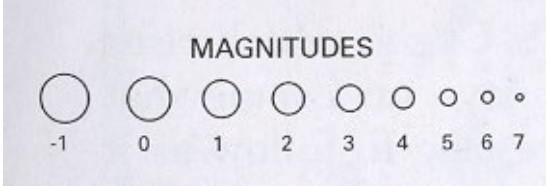
3)[6] List the stars in the table in order of increasing brightness **as seen in the sky**.

DIMMEST						BRIGHTEST
Sheliak	Alberio	Altair	Sadr	Deneb	Tarazed	Vega

4)[6] List the stars in the table in order of increasing brightness for all **at the same distance** (*eg.* 32.6 ly).

DIMMEST						BRIGHTEST
Altair	Vega	Alberio	Tarazed	Sheliak	Sadr	Deneb

Same!



Smaller number ⇒ Brighter object