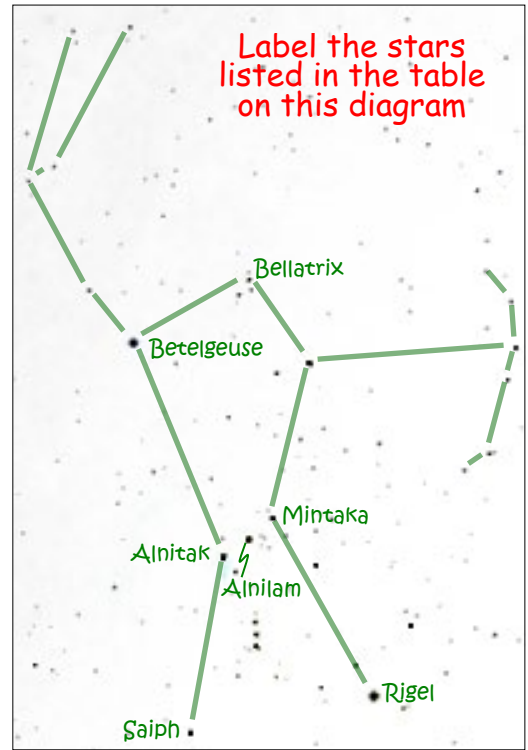
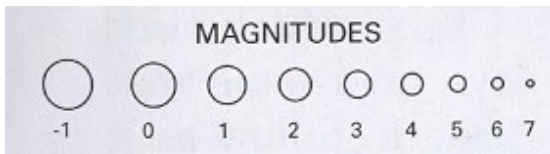


STAR DISTANCES AND MAGNITUDES

For the stars in Orion listed below, **complete the table and label the diagram** with "other" star names listed in the table (looking south from SLU at 9 pm on January 25) by using Appendix 2 and Atlas Chart 24 in the Field Guide.³¹

Apx. 2 in order of RA

BAYER DESIGNATION	RA	VISUAL MAGNITUDE (V)	ABSOLUTE MAGNITUDE (M _v)	DISTANCE (ly)	OTHER NAME
α Ori	5 ^h 51 ^m	0.5	-5.0	522	Betelgeuse
β Ori	5 ^h 15 ^m	0.12	-6.6	773	Rigel
γ Ori	5 ^h 25 ^m	1.64	-2.8	243	Bellatrix
κ Ori	5 ^h 48 ^m	2.06	-5.0	815	Saiph
δ Ori	5 ^h 32 ^m	2.23	-5.4	916	Mintaka
ε Ori	5 ^h 36 ^m	1.70	-6.6	1342	Alnilam
ζ Ori	5 ^h 41 ^m	2.05	-5.5	817	Alnitak



List the stars in the above table in order of distance from the sun. (use the Bayer Designation ... both Greek letter and Constellation abbreviation).⁸

NEAREST			FARTHEST			
Bellatrix	Betelgeuse	Rigel	Saiph	Alnitak	Mintaka	Alnilam

List the stars in the above table in order of increasing brightness as seen in the sky.⁸

BRIGHTEST			DIMMEST			
Rigel	Betelgeuse	Bellatrix	Alnilam	Alnitak	Saiph	Mintaka

List the stars in the above table in order of increasing brightness if they were all at the same distance (eg. 32.6 ly).⁸

BRIGHTEST			DIMMEST			
Rigel	Alnilam	Alnitak	Mintaka	Betelgeuse	Saiph	Bellatrix

What do apparent and absolute magnitudes of two different stars tell you about those stars?⁴

- Apparent magnitudes tell me which is brighter in the sky
- Absolute magnitudes tell me which is actually brighter (emitting more energy).