





Late Spring







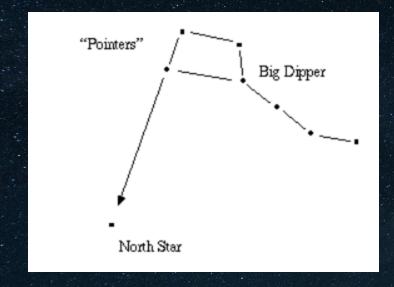


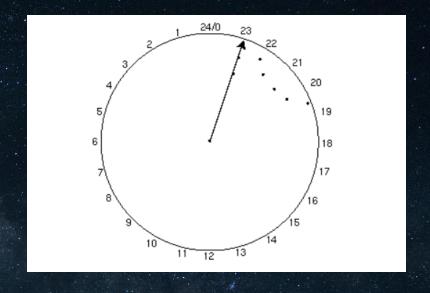


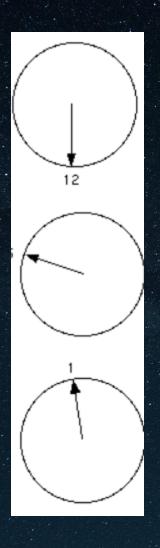












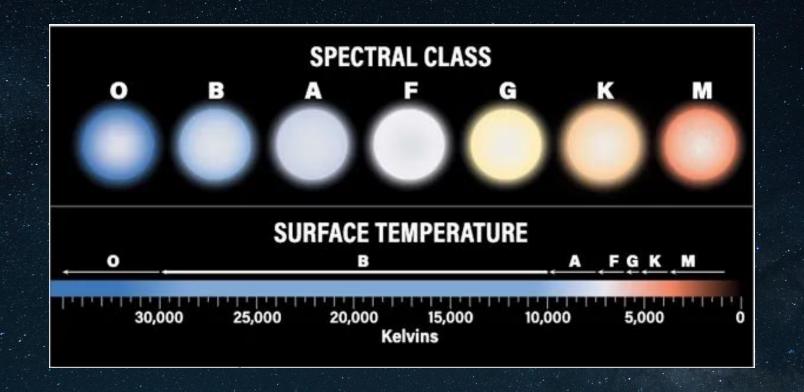
The dipper clock reads 12 hours on August 8

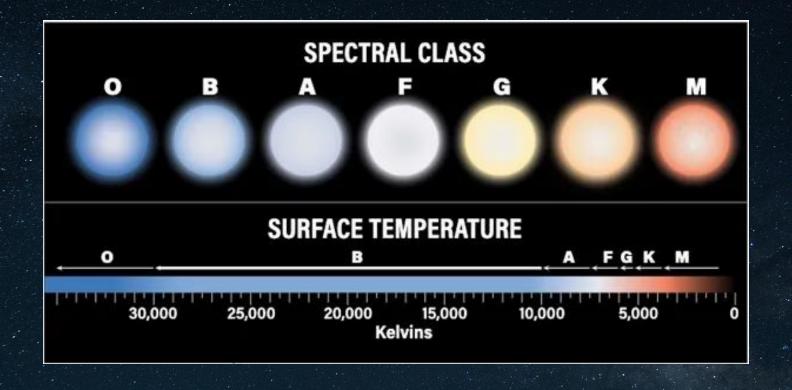
The dipper clock reads 5 hours on June 20

The dipper clock reads 1 hour on January 15

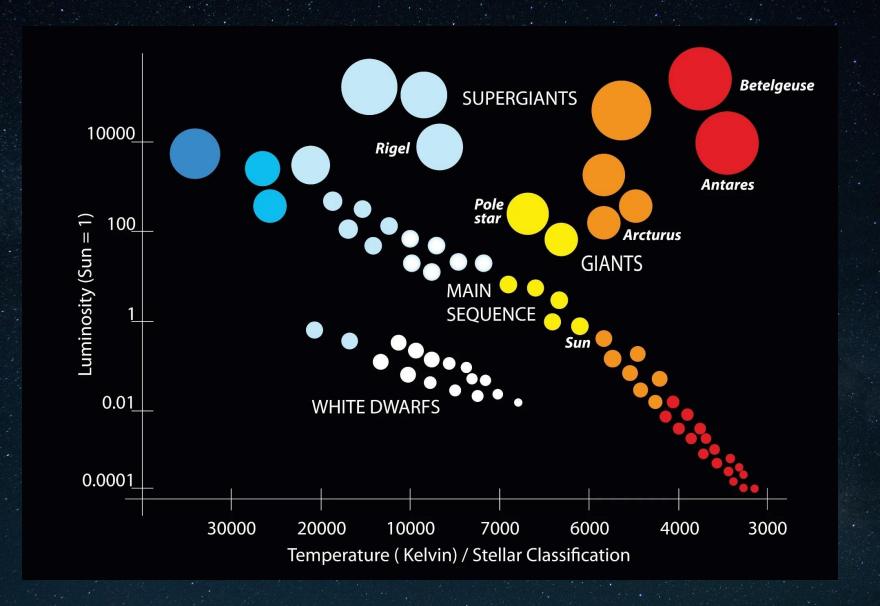
Resources

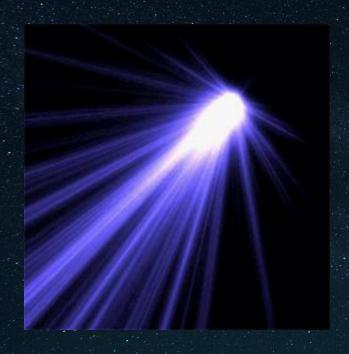
Resources



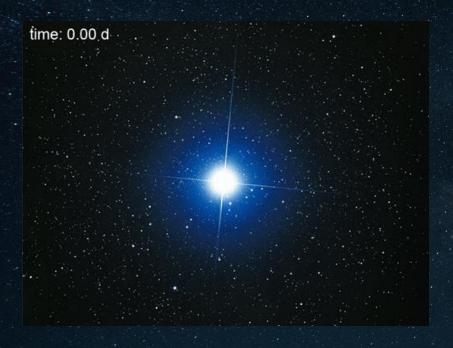


Ominiscient Beings Are Firing Gigantic Knowledge Missiles

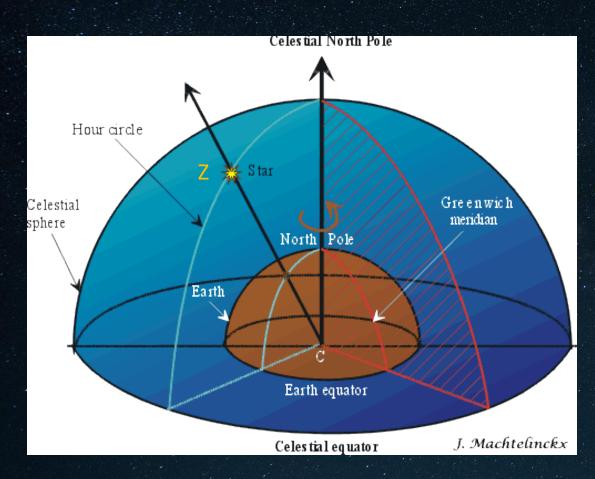




Light Year: Distance travelled by the light in one year. Light travels at the speed of 3 X 10⁸ m/s.



Apparent Magnitude: Measure of the brightness of a star or celestial body as observed from Earth.



The celestial sphere is an imaginary sphere with the earth at its center. The sky overhead is the half of the sphere we see from earth, appearing as a dome (even though the sky extends infinitely into space). The other half of the sphere is below the circle of the horizon.

The hour circle is the great circle through a given object and the two celestial poles.

The point Z on the celestial sphere, which is directly above the head of the observer, is called his zenith.





Dubhe



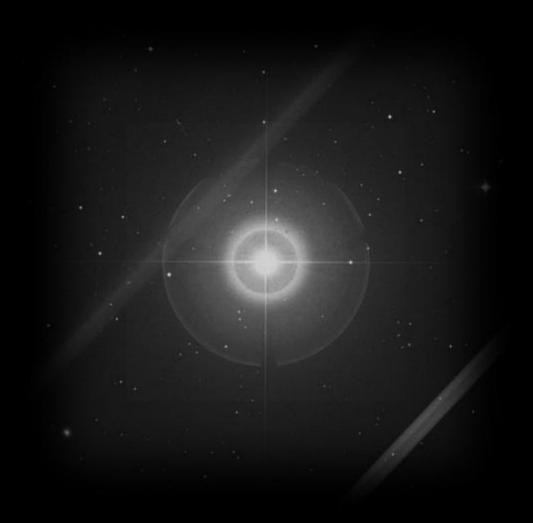


Spectral type: :**G9III+A7.5 C**Distance: 123 light years
Absolute Magnitude: -1.09

Dubhe is a suspected variable star. Its brightness has been reported to change by a thousandth of a magnitude.



Merak





Spectral type: A

Temp: 9,225 K

Distance: 79.75 Light Years Absolute Magnitude: 0.304





Phecda





Spectral Type: A0

Temp: 10125 K

Distance: 83.61 Light Years Absolute Magnitude: 0.407





Megrez





Spectral Type: A2

Temp: 9226 K

Distance: 81.40 Light Years

Absolute Magnitude: 1.348





Alioth





Spectral Type: A1

Temp: 10382 K

Distance: 80.89 Light Years

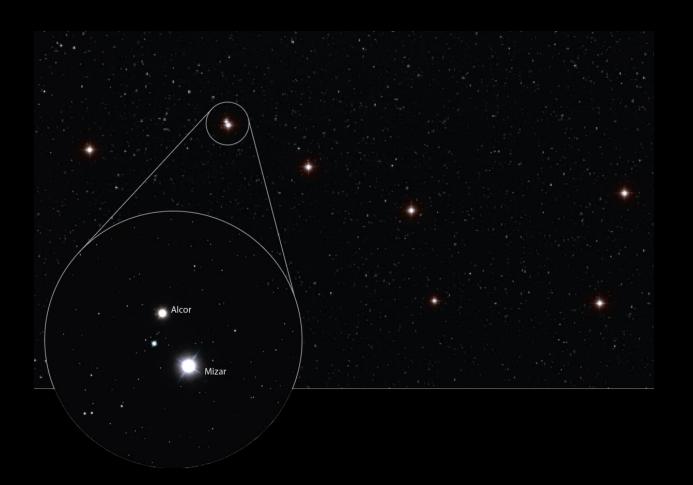
Absolute Magnitude: -0.246





Mizar & Alcor





Mizar 1, Spectral Type: A1
Absolute Magnitude: 0.2217

Mizar 2, Spectral Type: A2 Absolute Magnitude: 1.907

Alcor, Spectral Type: A5

Absolute Magnitude: 2.0154





Alkaid





Spectral Type: B3V

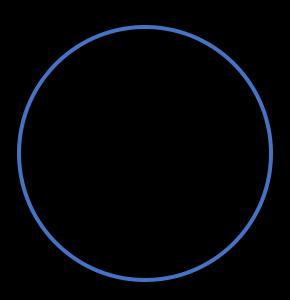
Absolute Magnitude: -0.6567

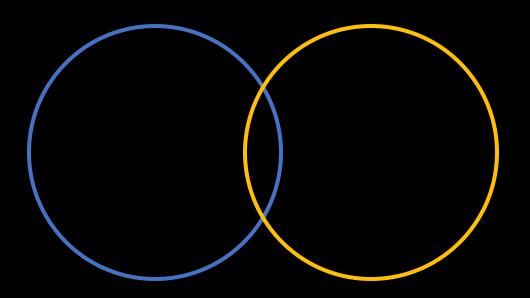
Surface temperature: 13348 K

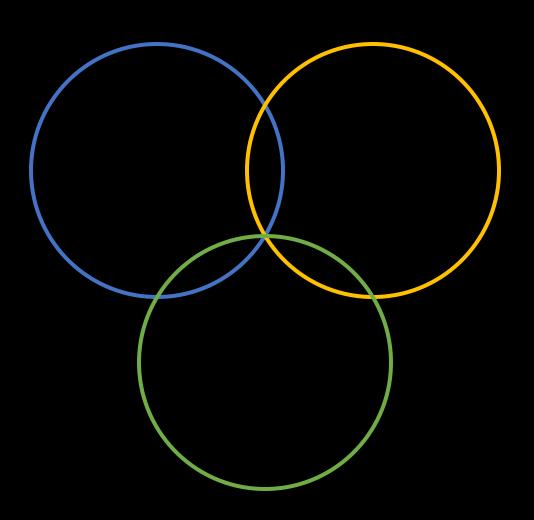
Zoo Time

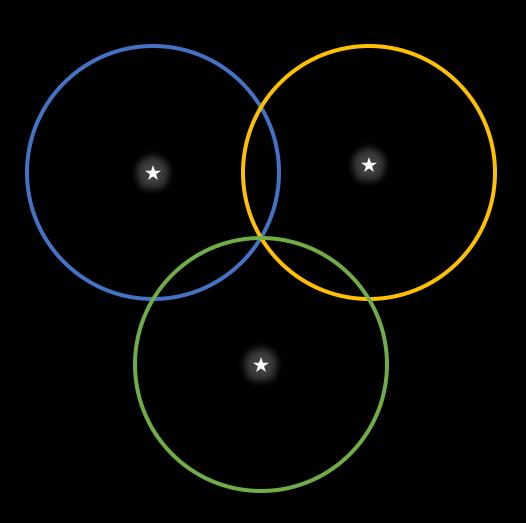


point the sextant to the horizon









Skoden