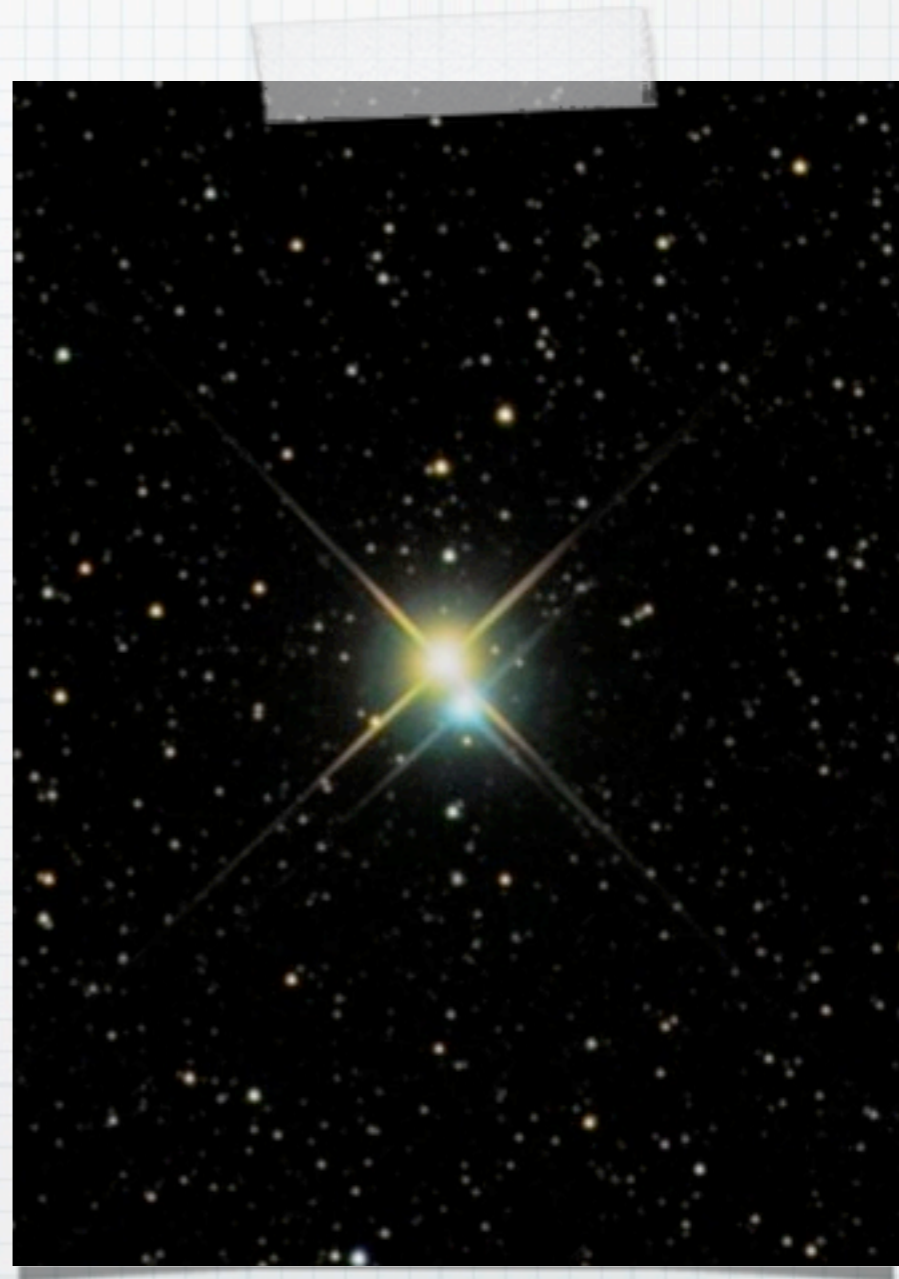


Characteristics of Stars

Stars

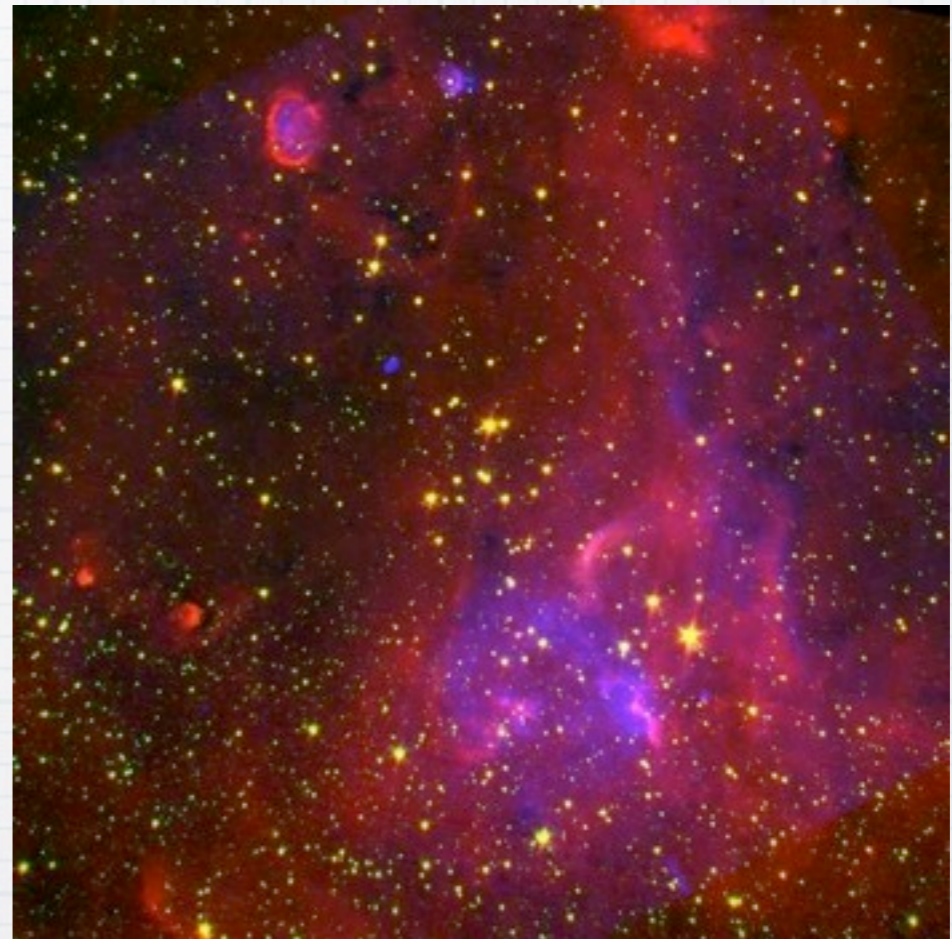
- * Stars:
- * Are hot balls of gases emit energy in the form of light
- * They differ in brightness, colour, and temperature



Characteristics of Stars

Colour

- * Vary in colour
 - * Blue
 - * Yellow
 - * Red



Luminosity

- * **Luminosity** – how bright a star is
- * **Luminous objects appear brighter when they are closer.**

Luminosity

- * Apparent magnitude – how bright a star appears to an observer on Earth
- * Stars can appear to be the same brightness to us on Earth even though they may not be

APPARENT MAGNITUDE



ABSOLUTE MAGNITUDE



Luminosity

- * Absolute magnitude - the actual brightness of a star
- * Stars that are as bright as our Sun have a luminosity of 1
- * If a star has a luminosity of 50, it is 50 times brighter than our Sun

APPARENT MAGNITUDE



ABSOLUTE MAGNITUDE



Characteristics of Stars

Temperature

- * Hot stars are around 15 000oC and greater

Characteristics of Stars

Temperature

- * Hot stars are around 15 000oC and greater



Relationships Between Characteristics of Stars

- * Temperature and Colour
- * Colour is an indication of a star's surface temperature
 - * Blue stars are hotter
 - * Red stars are cooler

Relationships Between Characteristics of Stars

- * Luminosity and Colour
 - * Brighter stars are blue
 - * Dimmer stars are red

Relationships Between Characteristics of Stars

- * Size and Luminosity
 - * Bigger stars are brighter
 - * Smaller stars are dimmer

Composition of Stars

- * A spectrograph is used to analyze the spectrum of a star
- * This spectrum allows us to tell what elements are present