

Astr 1020: Test 2 Study Guide

Chapter 15: Stars

- Hertzsprung-Russell diagram, components
- luminosity class and spectroscopic parallax
- stellar ages
- star clusters and their Hertzsprung-Russell diagrams

Chapter 16: STAR BIRTH

- star formation in clouds = nebulae
- best views in infrared (less dust obscuration)
- atomic gas, molecular gas, dust
- collapse: pressure vs. gravity (Jeans' mass)
- observations of protostars: disks, jets
- steps to star formation
- degeneracy pressure
- lowest mass stars: brown dwarfs
- highest mass stars: stellar winds
- numbers of stars by mass

Chapter 17: STAR LIVES

- low mass stars: He flash, He burning by 3 Helium atoms into 1 Carbon atom
- red giants
- mass loss at end of life: planetary nebula, white dwarf remnant
- high mass stars: CNO cycle, advanced nuclear burning
- massive star supernova explosion Type II; neutron star or black hole remnant
- mass transfer and evolution in close binary stars