

IntroCosmo24

Homework problems #7

Due December 19, 2024

Using the information and data provided at the last lecture (December 12)

a) estimate the redshift of an epoch when the density of matter started to dominate over the energy density of radiation, what was the average density and temperature then?

b) estimate the redshift of an epoch when the energy density of dark energy started to dominate over the density of matter, what was the average density of matter then?

c) the primordial nucleosynthesis started when the temperature of the universe was about 10^{10} K, what was the average density of matter-energy at that epoch ?