

ASTR 5770 Cosmology Fall 2025. Problem Set 2. Due Wed Sep 10

1. Mass-energy in a FLRW universe (8 points)

[Exercise 10.3.](#)

2. Matter- Λ equality (4 points)

If the Universe is flat and dominated by matter and a cosmological constant, at what redshift z were the energies of matter and cosmological constant equal?

3. Age of the Universe (8 points)

[Exercise 10.6.](#)