

Review Sheet for the Midterm Exam

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The midterm exam will be Friday, March 2. There will be some questions of the sort in which you are asked to describe, define, or explain things as well as some calculations to do. This sheet is a summary of the material you should study for the exam.

Ta-Pei Cheng's review questions are excellent. I suggest you study the following.

Chapter 3, Questions 1 – 5

Chapter 4, Questions 1, 3, 5, 9

Chapter 5, Questions 1, 3, 5, 6

Chapter 7, Questions 1 – 11

Chapter 8, Questions 2, 3, 5, 6

You should be able to define and explain such concepts as Hubble constant, Hubble parameter, scale factor, geodesic, proper distance, luminosity distance, dark energy, dark matter, rotation curves, critical density, redshift, metric, cosmological principle, and equivalence principle.

You will be given the Friedman equations and asked to calculate various cosmological parameters based on simplifying assumptions.