

Math 4060 (Cherry)

Reading and Individual Study

We will do some skipping around.

Skim section 17, especially pages 149, 150, Prop. 17.4, and Cor. 17.5.

Skim section 20. This is a refresher on similar triangles. Similar triangles are useful for the proofs of some exercises in section 37.

Read the introduction to Chapter 7

Carefully study section 37. Section 37 will be important for us.

Glance at section 38. There are some cool constructions here, but we will not have homework nor will you be tested on section 38.

Start studying section 39.

Written Assignment #26 Due Friday, April 14

Hartshorne exercises 37.2 and 37.3. *Hint:* Exercise 37.3 is not difficult and has a very short solution if you make use of what has been proven in the book.

Written Assignment #27 Due Monday, April 17

Hartshorne exercises:

Do Exercises 37.7 and 37.9. Illustrate your construction to 37.9 with Geogebra or Sketchpad. *Hint:* Since the circle γ passes through O , it always contains points inside the circle Γ , and so you can use 37.7 as part of your solution to 37.9.

Extra Credit. 37.10 (within par) and 37.12. Notes: Exercise 37.10 is not especially hard if you ignore the par value. Also, if γ contains some points farther away from O than half the radius of Γ , you can use Exercise 37.2 to construct inverses of some points on γ . So, the most difficult case to consider in terms of getting par 15 is the case that all of γ is within half the radius of Γ from O . The construction in 37.12 is a nice thing to know, but it is a challenge to prove that it works.