

MATH 5615H: HONORS ANALYSIS I
HOMEWORK 2
DUE THURSDAY, SEPTEMBER 19, 2024, 11:59 P.M.

INSTRUCTOR: SASHA VORONOV

1. I encourage you to collaborate with each other when you do homework, but write the solutions in your own words. Please write on your work with whom you collaborated.

2. I do not encourage you, but do not mind if you use literature and internet sources to help you with solutions. This includes using Artificial Intelligence (AI), such as ChatGPT. Ask it to give you a hint, when you run out of ideas. If you use a source, please quote it briefly.

Read: Your course notes. Chapter 3 (Sections 3.2 and 3.6; the rest is optional, but you may need to look up the axioms of set theory in those sections in doing your homework) and Sections 4.1–4.2 of Tao’s textbook.

Exercises: 3.2.3, 3.6.3, 3.6.4, 3.6.12, 4.1.5, 4.1.7, 4.2.4, 4.2.5.