

Practice Homework #4

⇒ (0 points) ⇐

“Due” Date: May 1, 2024, at the review session

Directions

Because we are nearly at the end of the semester, there’s not enough time to have a real homework graded and returned before the final exam. However, we’re confident that you will benefit from working some problems on recently-introduced material that will be covered by the exam, even if we do not collect your answers. Thus, we offer this *uncollected, ungraded* homework. We recommend that you treat it as you would a regular homework: Write complete answers to all of the questions, do your own work, and show that work, when appropriate. The TAs will entertain questions on these problems during the review session (and in office hours, of course).

Incentive: As encouragement to work through these problems, I’ll select one of them to be on the final. Should be easy points . . . if you do this ‘homework!’

Section 4.1: Divisibility and Modular Arithmetic:

1. Section 4.1, 7
2. Section 4.1, 11
3. Section 4.1, 13(d,f)
4. Section 4.1, 15(a)
5. Section 4.1, 35(a,b)

Section 2.4: Sequences (and Summations):

16. Section 2.4, 3(b,d)
17. Section 2.4, 7
18. Section 2.4, 25(a,e,f)
19. Section 2.4, 39

Section 4.2: Integer Representations:

6. Section 4.2, 3(a,b)
7. Section 4.2, 5(c,d)
8. Section 4.2, 11
9. Section 4.2, 35(a,b)

Section 2.5: Cardinality of Sets:

20. Section 2.5, 3(a,c)
21. Section 2.5, 11(a,b,c)
22. Section 2.5, 17

Section 4.3: Primes and GCDs:

10. Section 4.3, 3(a,d)
11. Section 4.3, 5
12. Section 4.3, 15
13. Section 4.3, 17(b,d)
14. Section 4.3, 25(a,c)
15. Section 4.3, 27(a,c)