CSE/AMS 547 Discrete Mathematics

September 17, 2024

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TA: Aditya Patwardhan

Due by Tuesday, September 24, 2024, 3:25 pm.

Please select **eight** of the following exercises and provide solutions.

From the textbook's exercises:

- 1). 2.22
- 2). 2.27
- 3). 4.16
- 4). 4.24
- 5). 4.26
- 6). 4.30
- 7). 4.38
- 8). 4.42
- 9). For any integer n, please prove:

$$6 \mid n(n+1)(n+2)$$

10). For any positive integers a and b, please prove:

$$ab = \gcd(a, b) \cdot \operatorname{lcm}(a, b)$$