

Instructions

- Answer each question completely; justify your answers.
- This assignment is due at: 5:00 pm on Wednesday October 11th.

1. Exercise 5.4.22.

2. Exercise 5.4.54.

3. Exercise 5.5.11.

4. Exercise 5.5.12.

5. Exercise 5.5.25: Evaluate $\sum_{k=0}^n \frac{(2n)!}{k!^2(n-k)!^2}$.

6. Exercise 5.5.32.

7. Exercise 6.1.2.

8. Exercise 6.1.4.

9. Exercise 6.1.12.

10. Exercise 6.1.14.

11. Exercise 6.2.2.

12. Exercise 6.2.4.

13. Exercise 6.2.6.

14. Exercise 6.2.8.

15. Exercise 6.2.18.

16. Exercise 6.2.20.