

Instructions

- Answer each question completely; justify your answers.
- This assignment is due at 12:00 noon on Thursday November 7, 2002.

1. Exercise 6.4.8.

2. Exercise 6.4.10.

3. Find an ordinary generating function $G(x) = \sum_{r \geq 0} a_r x^r$ such that

(a) $a_r = 5r^2 - \frac{3r}{2}$

(b) $a_r = (r + 2)(r + 1)(r) \cdots (r - 99)$

4. Exercise 6.5.2.

5. Exercise 6.5.6.

6. Exercise 7.1.4.

7. Exercise 7.1.6.

8. Exercise 7.1.18.