

1. Assume that $p_X(k) = c/k^\alpha, \forall k \in \mathbb{N}, \alpha > 1$ and $p_Y(k) = c/(k^\alpha + 0.5), \forall k \in \mathbb{Z}, \alpha > 1$. Determine for which values of α , the mean and variance of X and Y are finite, infinite, or not well defined.
2. Gubner Chapter 2, Problem 33
3. Gubner Chapter 2, Problem 34
4. Gubner Chapter 2, Problem 38
5. Gubner Chapter 2, Problem 45
6. Gubner Chapter 2, Problem 50
7. Gubner Chapter 3, Problem 38
8. Gubner Chapter 3, Problem 41
9. Gubner Chapter 3, Problem 45
10. Dobrow Problem 4.59.
11. Reading Assignment: Dobrow, Example 4.20, p. 138-p.140.