

List of selected exercises

1 Recommended Exercises from JR

401, 403, 404, 405, 406

2 Extra Exercises on Discrete Random Variables

1. Let $X \sim Po(1.5)$, calculate $P(X < E[X])$.

Answer: 0.56

2. (171024.1) A random variable X can take values 1, 2, 3 with probability

$$P(X = 1) = 0.1c, P(X = 2) = 0.3c, P(X = 3) = 0.1c,$$

and no other values can be taken. Answer the following questions:

- (a) Determine c .
- (b) Calculate $P(X \leq 2)$.
- (c) Calculate $P(X \leq 4)$.
- (d) Calculate $E(X)$.
- (e) Calculate $V(X)$.

Answer: a) 1, b) 0.8, c) 0.4, d) 2, e) 1.4