

Homework 3
Routine Practice Exercises Not to Be Turned In

1. Ross 1.8
2. Show that the discrete geometric distribution has the following version of the memoryless property:

$$P\{X > n + k - 1 | X > n - 1\} = P\{X > k\}.$$

3. Ross 1.34 (answer is in the back of the text.)

Exercises to Turn In. Due Date: Friday, February 4

1. Ross 1.18. Hint: Condition on the number of flips until the first tail appears.
2. Ross 1.26. Hint: The recurrence equation does not change, but the boundary considerations, if done properly and NOT as in Ross, do change. The answer is that second function given in class.
3. Ross 1.30
4. Ross 1.31
5. Ross 2.2