

CSCE 317 Spring 2017
QUIZ 2
Assigned Tuesday, 17-01-24

1. This question is from the textbook (p.40 [M]).

Suppose we have a room full of n disks. Each disk independently dies with probability p each year. How are the following quantities distributed?

- (a) The number of disks that die in the first year **Answer:** Binomial (n,p)
 - (b) The number of years until a particular disk dies **Answer:** Geometric(p)
 - (c) The state of a particular disk after one year **Answer:** Bernoulli(p)
2. Here are the definitions of two kinds of variables: random variables, and variables in first-order logic. Which one is which?
 - (a) An element of the domain of discourse **Answer:** FOL
 - (b) A real-valued function of the outcome of an experiment **Answer:** random variable (p.37 [H])