Discrete Distributions

Sample Problems:

1. There is a 0.85 probability that a randomly selected adult knows what Twitter is. We have 5 people randomly selected.

   (a) Find the probability that no one among the 5 people know what Twitter is.

   $$7.59 \times 10^{-5}$$

   (b) Find the probability that exactly 3 people among the 5 people know what Twitter is.

   $$0.138$$

   (c) Find the probability that at most 1 person among the 5 people know what Twitter is.

   $$0.00223$$

   (d) Find the probability that at least 2 people among the 5 people know what Twitter is.

   $$0.973$$

2. It has been observed that the average number of traffic accidents requiring medical assistance on the Hollywood Freeway between 7 and 8 AM on Wednesday mornings is 1.2.

   (a) What is the chance that there will be a need for exactly 2 ambulances on the Freeway, during that time slot on any given Wednesday morning?

   $$0.217$$

   (b) What is the chance that there will be a need for more than 2 ambulances on the Freeway, during that time slot on any given Wednesday morning?

   $$0.121$$