1. t*no of drops*inches = t * lambda = t * 20* 5 = 100t
   P(X=0) = ((100/20)^0/0!)*e^-100/20 = e^-5

2. X Y P(X) P(Y)

   1 2 1/7 1/7

   2 3 1/7 1/7

   3 4 1/7 1/7

   4 5 1/7 1/7

   5 6 1/7 1/7

   6 7 1/7 1/7

   P(X<Y) = 1/7+1/7+1/7+1/7+1/7+1/7 = 6/7