

8.1 The Binomial Distributions

1. What are the four conditions for the *binomial setting*?
2. In the *binomial distribution*, what do parameters n and p represent?
3. What is meant by $B(n, p)$?
4. What is the difference between a *probability distribution function* and a *cumulative distribution function*?

5. In the formula $\binom{n}{k} = \frac{n!}{k!(n-k)!}$, what does n represent? What does k represent? What does the value of $\binom{n}{k} = \frac{n!}{k!(n-k)!}$ represent?

6. Complete the following table of values:

1!	1	1
2!	2 x 1	2
3!	3 x 2 x 1	6
4!	4 x 3 x 2 x 1	24
5!		
6!		

7. What is the value of $\frac{n!}{(n-1)!}$?
8. What are the mean and standard deviation of a binomial random variable?