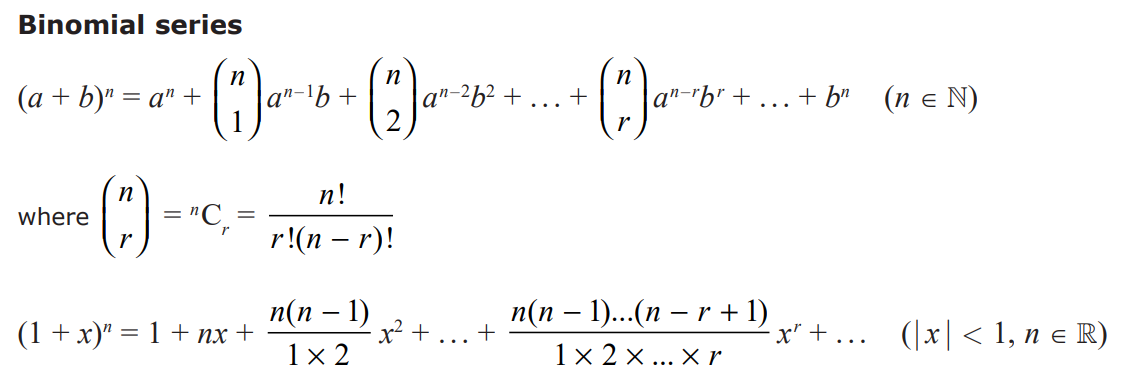
**8A Introduction & Pascal’s Triangle**

1. Find the expansion of (x + 2y)3
2. Find the expansion of (2x - 5)4
3. The coefficient of x2 in the expansion of (2 - cx)3 is 294. Find the value of c.

**8B nCr**

1. Calculate
2. Calculate
3. Calculate and , and comment on your answers

**8C nCr with Binomials**

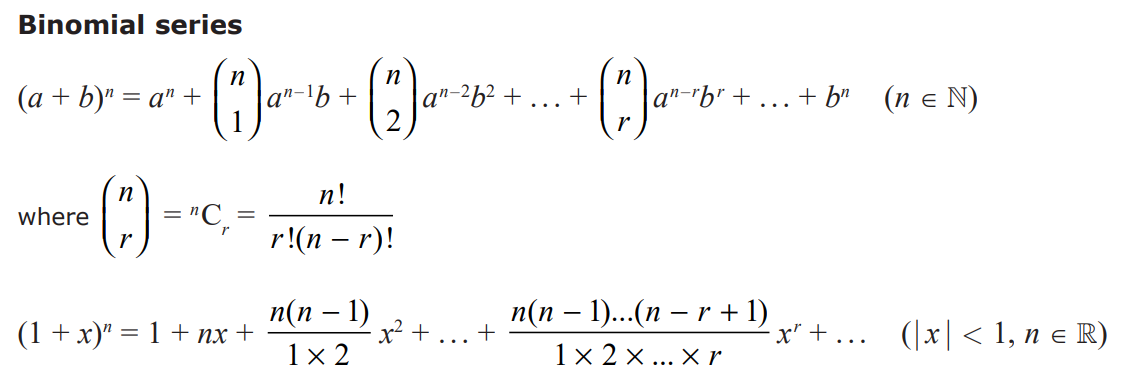
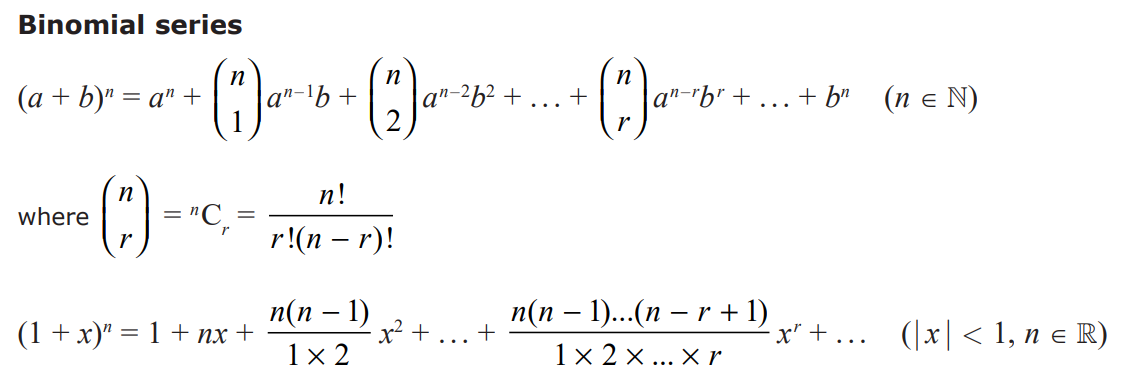


1. Use the binomial theorem to find the expansion of
2. Find the first 4 terms in the expansion of
3. Find the first 4 terms in the expansion of

**8D Finding Coefficients in Expressions**

1. Find the coefficient of in
2. Find the coefficient of in
3. If , where is a constant, and the coefficient of is 15, find the value of .
4. Write down the first three terms, in ascending powers of , of the binomial expansion of , where is a non-zero constant.
5. Given that, in the expansion of , the coefficient of is and the coefficient of is , find the values of and

**8E Using the Binomial Expansion for Approximations**

 …

1. Find the first four terms of the binomial expansion of , in ascending powers of
2. Use your expansion to estimate the value of 0.97510, giving your answer to 4 decimal places