1. F
   1. F
   2. C(n, 2)C(n − 2, k − 2) = C(n, k)C(k, 2)
   3. Must take at least two of each means, 10 cookies are fixed, because

And we left with 6 cookies to choose from.

* 1. Sum of all cases of chocolate chip cookies.
     1. 0 chocolate
     2. 1 chocolate
     3. 2 chocolate
     4. 3 chocolate
     5. 4 chocolate

X1 is reduced by 1 because possibility to get 1 is removed.

X2 is reduced by 2 because possibility to get 1 and 2 are removed

X3 is reduced by 3 because possibility to get 1, 2, 3 are removed

X4 is reduced by 4 because possibility to get 1, 2, 3, 4 are removed

* 1. Because we let x3 > 4. Then we reduce the possibility of x3 > 4 to get x3 < 5

Then we add it by x1 > 4

* 1. Because all of them are distinct.
  2. It needs to divide by 3! and 5! Because the 3 groups of 5 and 5 groups of 3 is not distinct.
  3. It needs to divide by 3!, 2!, 3! Because first 3! is there are 3 groups of 5 doing the same task, 2! Because there are 2 groups of 3 doing the same task, and last 3! Because the 3 groups of 3 is not doing any task.

1. 6-0-0-0-0-0 – 1 way

5-1-0-0-0-0 –

4-2-0-0-0-0 –

4-1-1-0-0-0 –

3-3-0-0-0-0 –

3-2-1-0-0-0 –

3-1-1-1-0-0 –

2-2-2-0-0-0 –

2-2-1-1-0-0 –

2-1-1-1-1-0 –

1-1-1-1-1-1 – way

If books are different, there’s ways = 278 ways

If books are identical, then there’s only 11 ways to put because there’s only 11 combinations

* 1. need to times by 12! Because the 12 books can be put in every different position.

1. Adding all degrees =

Edge =