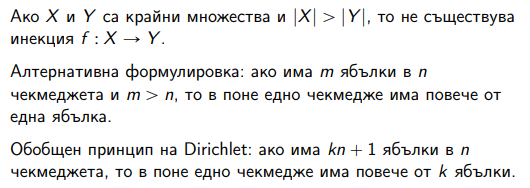
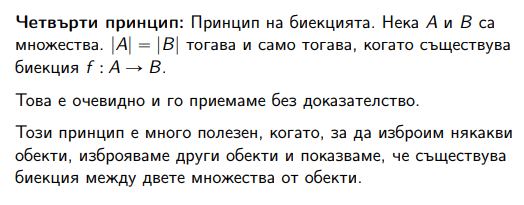
# **1. Формулировки на принципите на изброителната комбинаторика – принцип на Дирихле, принцип на биекцията, принцип на събирането, принцип на изваждането, принцип на умножението, принцип на делението, принцип за включване и изключване (с доказателство).**

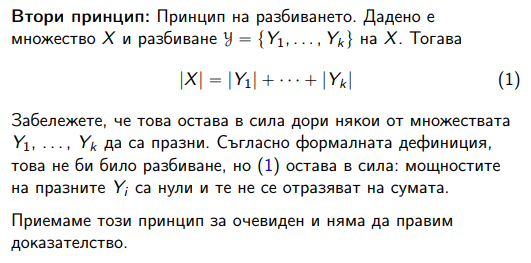
**- принцип на Дирихле**



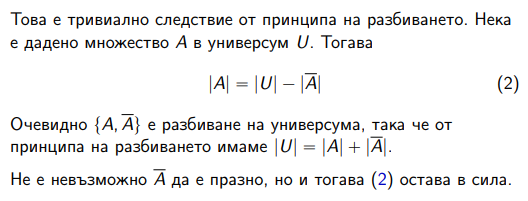
**- принцип на биекцията**



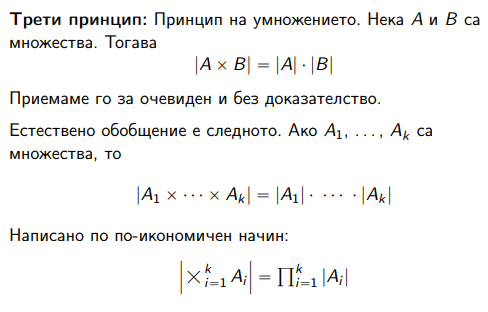
**- принцип на събирането**



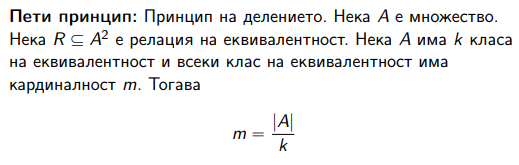
**- принцип на изваждането**



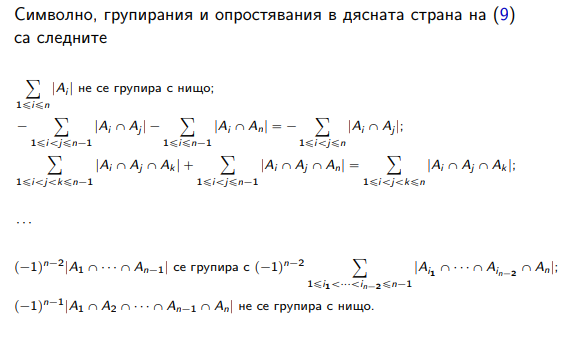
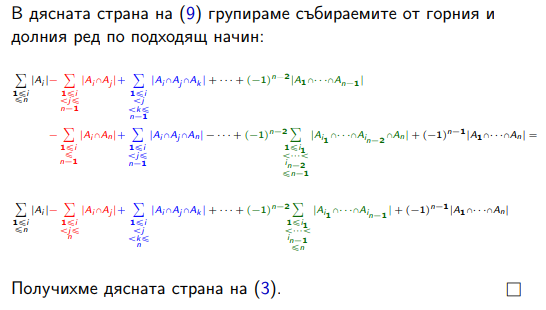
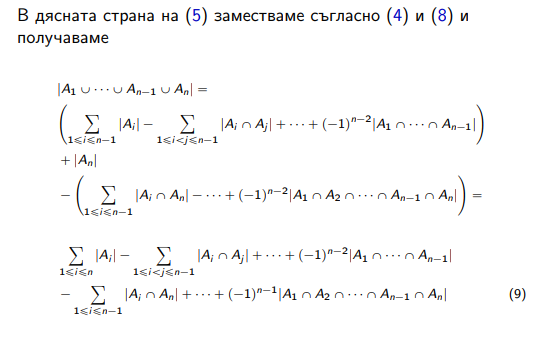
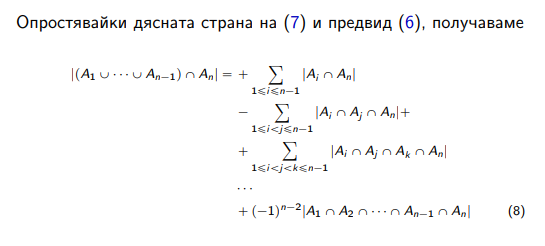
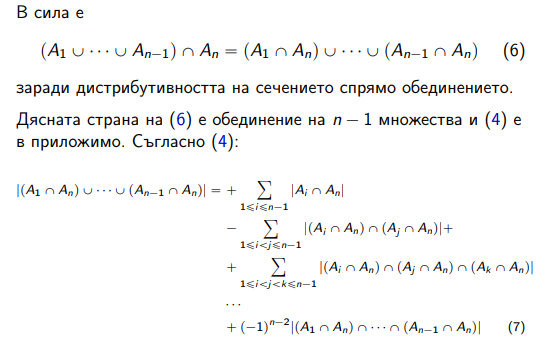
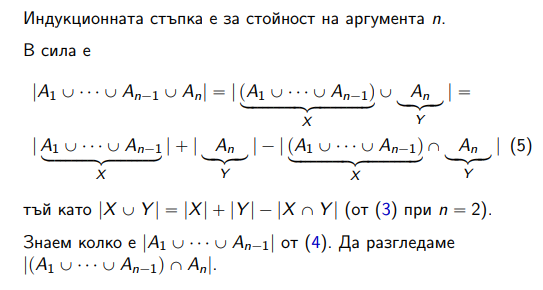
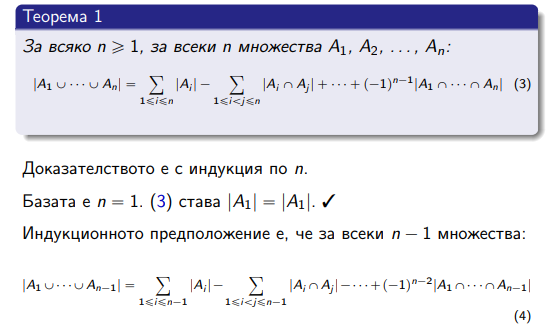
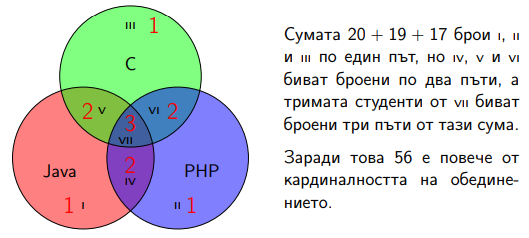
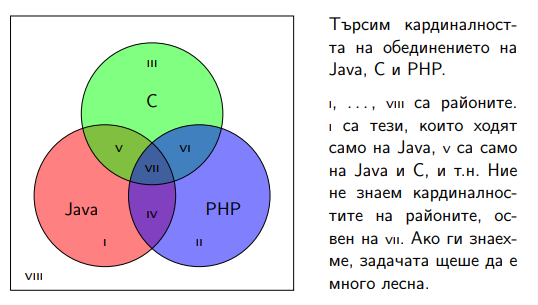
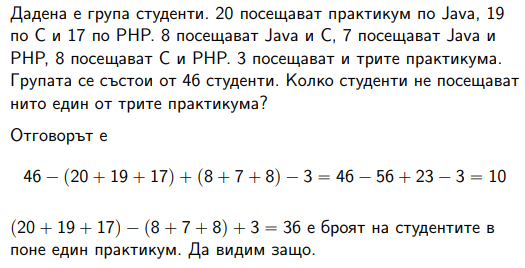
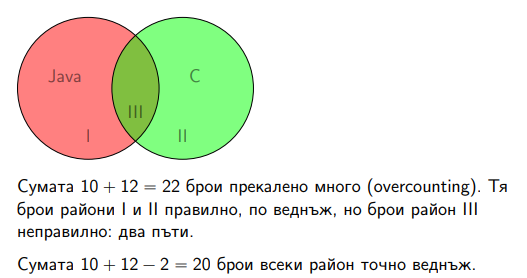
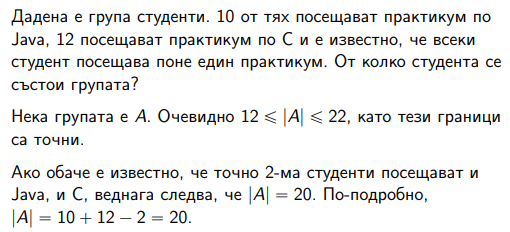
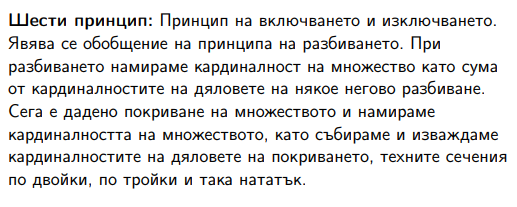
**- принцип на умножението**



**- принцип на делението**

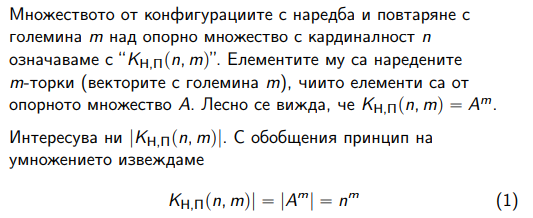


**- принцип на включване и изключване**

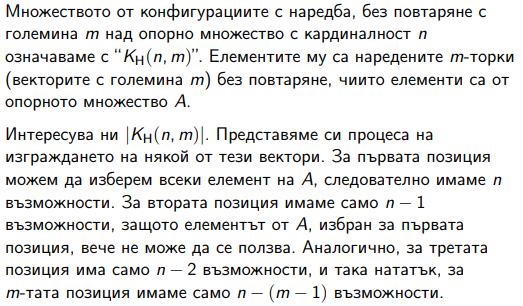


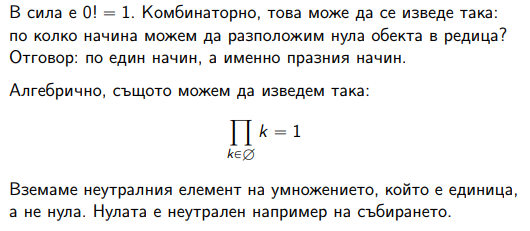
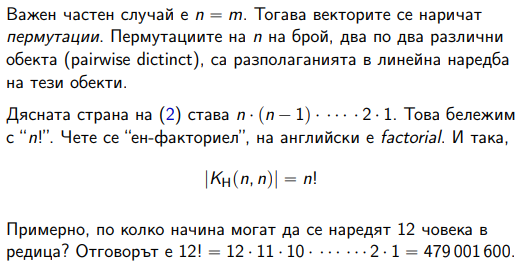
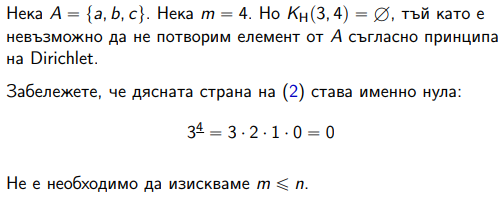
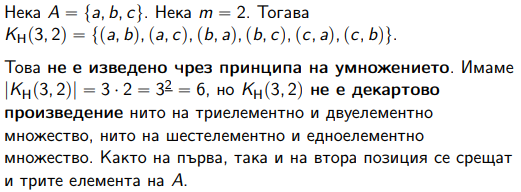
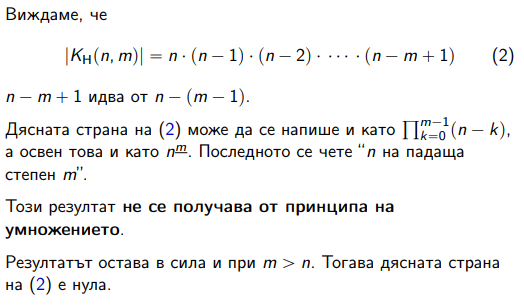
# **2. Основните комбинаторни конфигурации: с или без наредба, с или без повтаряне.**

**- с наредба и повтаряне**

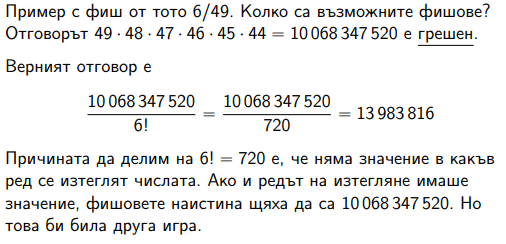
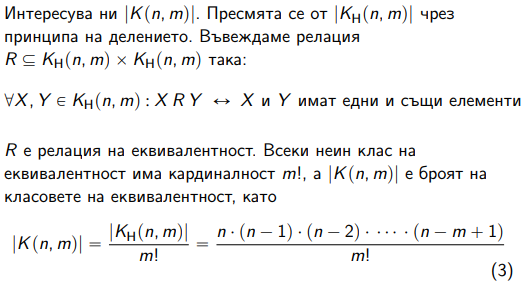
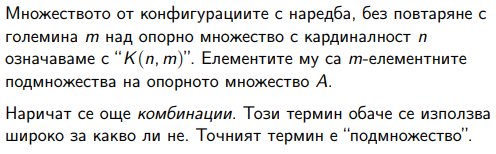


**- с наредба и без повтаряне**

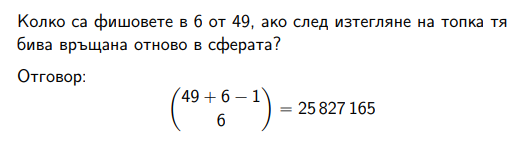
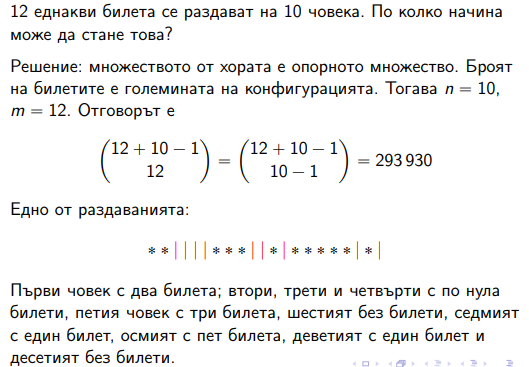
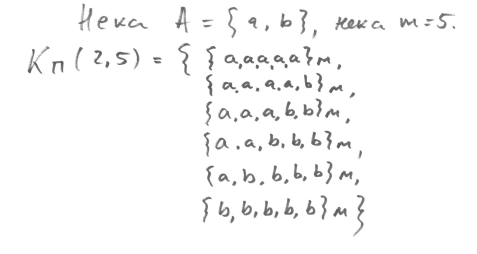
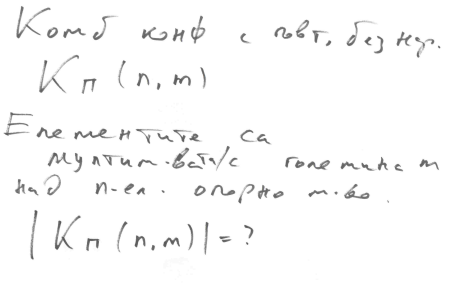




**- без наредба и без повтаряне**

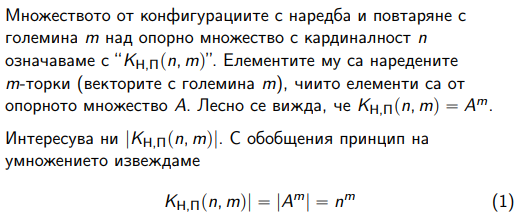


**- без наредба и с повтаряне**

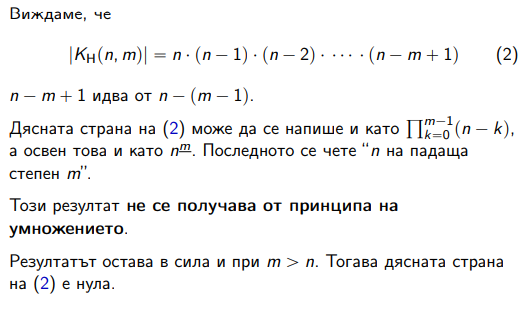
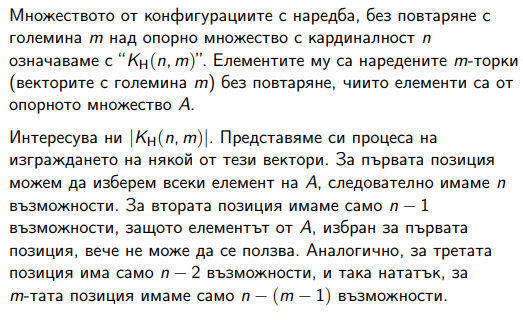


# **3. Извеждане на формулите за броя на основните комбинаторни конфигурации.**

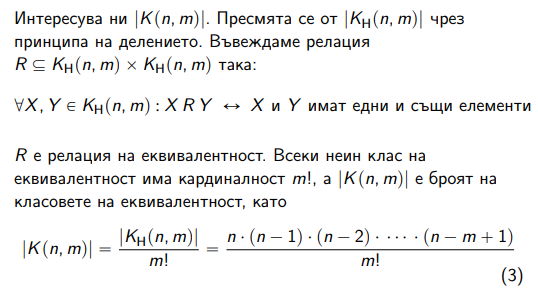
**- с наредба и с повтаряне**



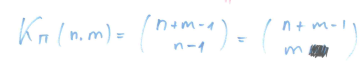
**- с наредба и без повтаряне**



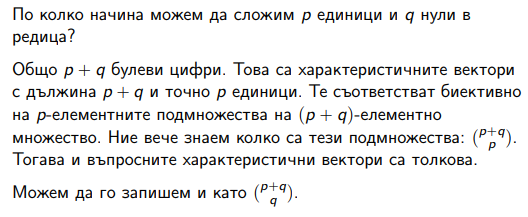
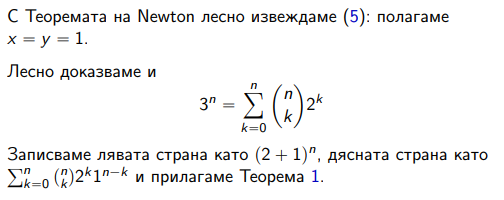
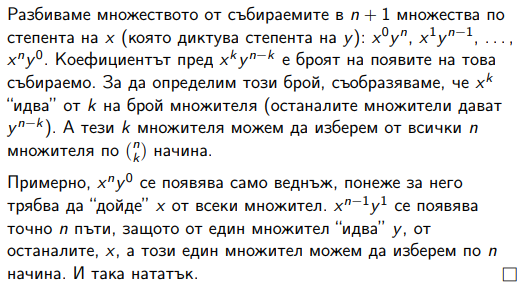
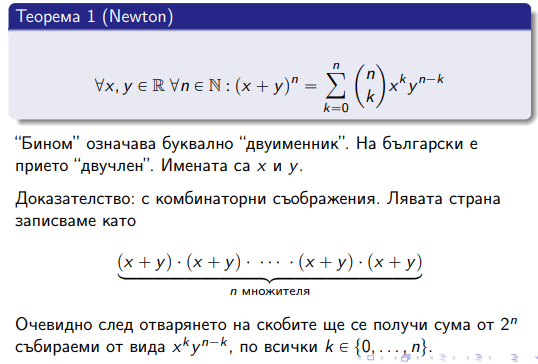
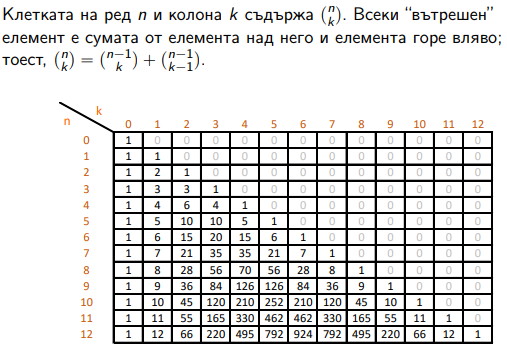
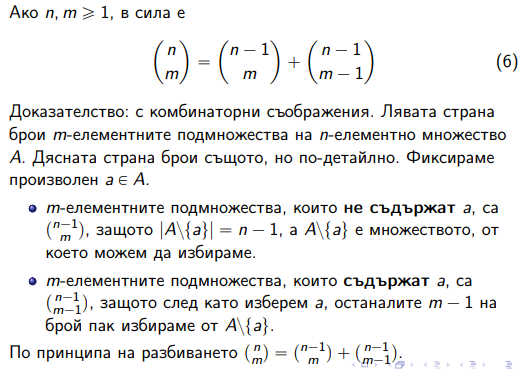
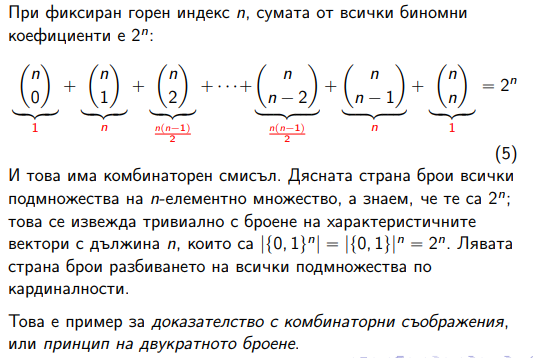
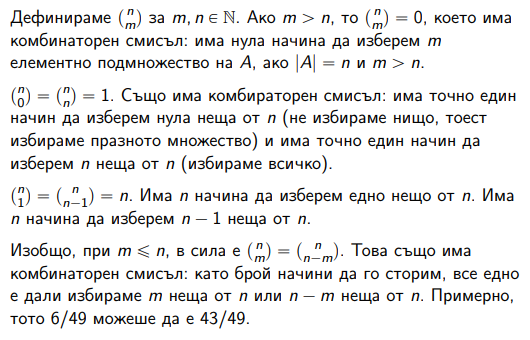
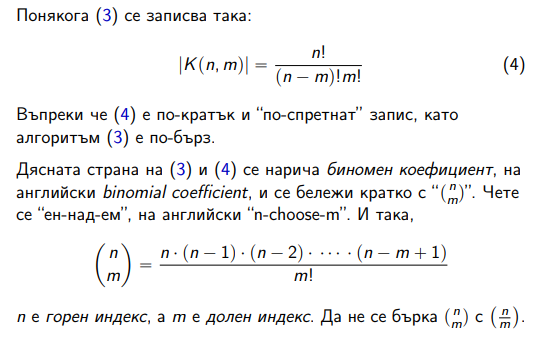
**- без наредба и без повтаряне**



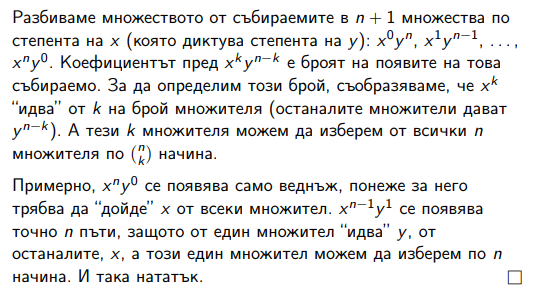
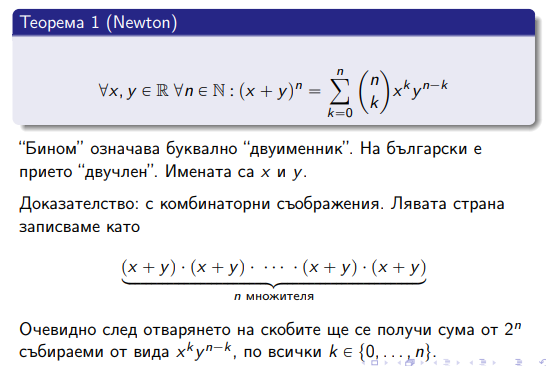
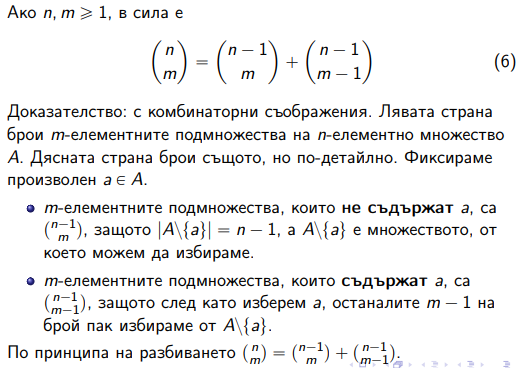
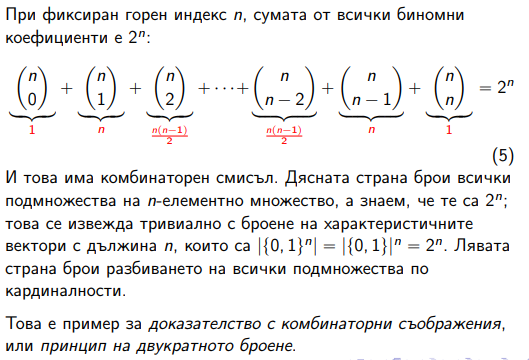
**- без наредба и с повтаряне**



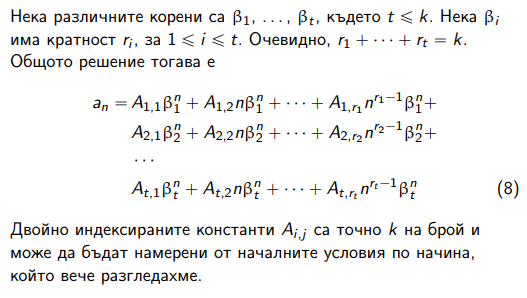
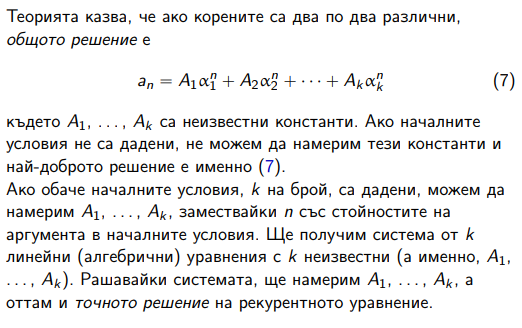
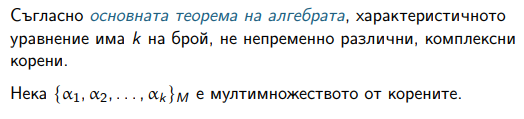
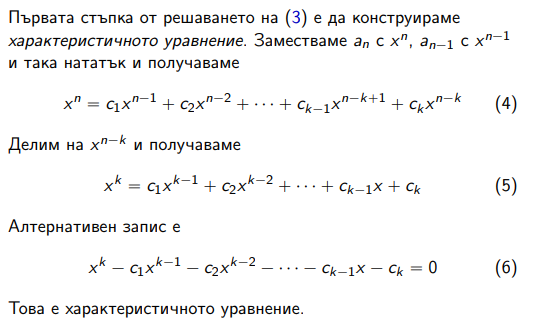
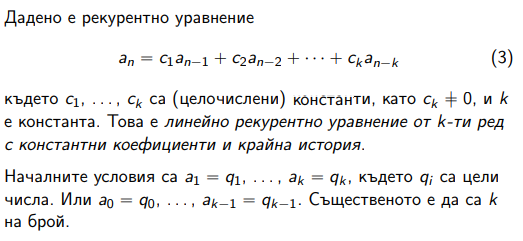
# **4. Биномни коефициенти и теорема на Нютон.**



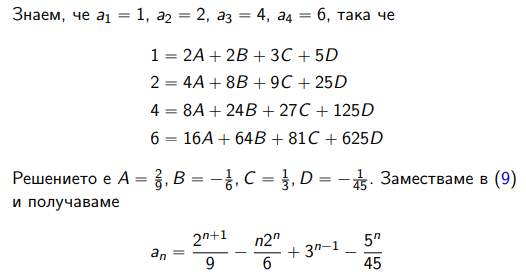
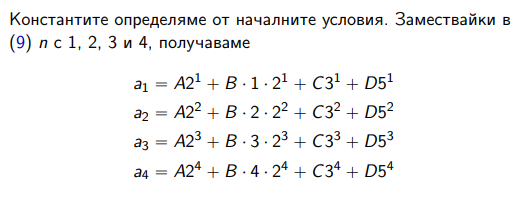
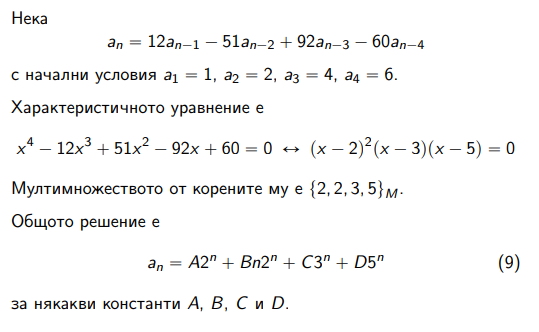
# **5. Доказателства на комбинаторни тъждества чрез комбинаторни разсъждения (принцип на двукратното броене).**



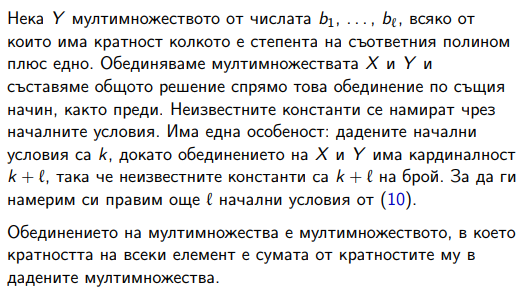
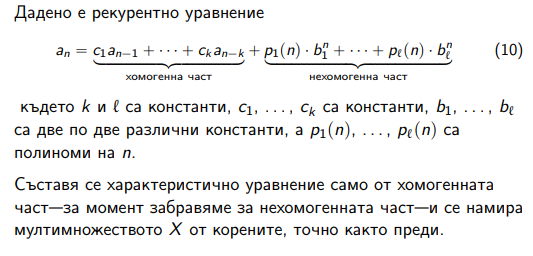
# **6. Алгоритъм за решаване на линейни рекурентни уравнения с константни коефициенти – хомогенни и нехомогенни.**



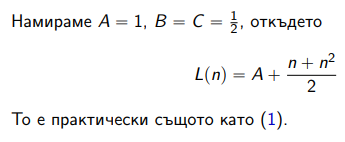
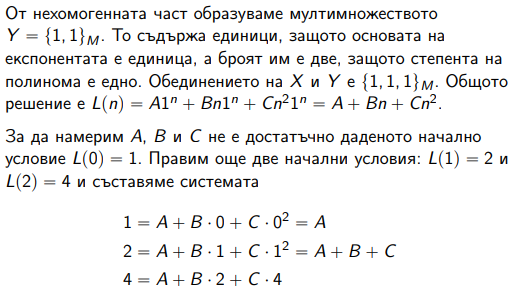
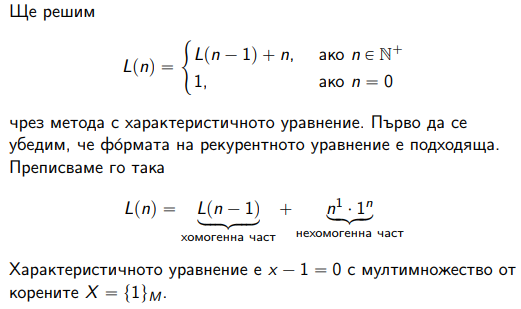
**- пример**



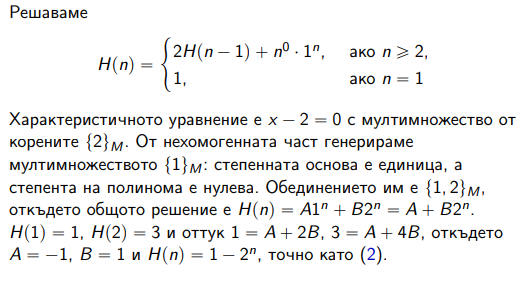
- **нехомогенни**



**- пример 1**



**- пример 2**



**- пример 3**

