

1st September 2022

Task

Enumerative Combinatorics

3 Principle:-

- (1) Addition
 - (2) Multiplication
 - (3) Inclusion - exclusion
- (~~1~~)

General scenario:

Green: deposit money: $A(\$B)$

Blue: Borrow money: $C(\$D)$

$$\text{Balance} = \$ \left(\underbrace{AB + E}_{\text{gained \$}} - \underbrace{CD}_{\text{lost \$}} \right) \geq \$0$$

Constraint:

$$\begin{cases} A = C \\ B = D \\ E = 0 \end{cases}$$

Addition:

$$\text{approach 1} + \text{approach 2} \dots + \text{approach n}$$