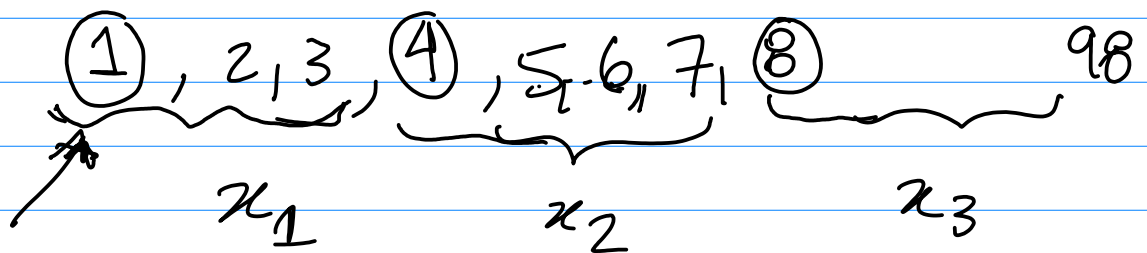


$$S = \{ 1, \dots, 100 \}$$

solo 4 elementos $\binom{100}{4}$

1, 2, 3, ..., 100



$$x_0 + x_1 + x_2 + x_3 + x_4$$

$$\{ 1, 2, 3, 4, 5, 6, \dots, 100 \} \quad A, B, C, D$$

Elegir el primer elemento A en 4 elementos elegidos

$$x_1 (= B - A) \quad x_1 \geq 3$$

$$x_2 (= C - B) \quad x_2 \geq 3$$

$$x_3 (= D - C) \quad x_3 \geq 3$$

$$\{1, 2, \boxed{3}, 4, 5, \boxed{6}, 7, 8, \boxed{9}, 10, 11, \boxed{12}, 13, \dots, 100\}$$

$$\underbrace{\quad}_{x_0} \quad \underbrace{\quad}_{x_1} \quad \underbrace{\quad}_{x_2} \quad \underbrace{\quad}_{x_3} \quad \underbrace{\quad}_{x_4}$$

$$x_1 + x_2 + x_3 \leq 100$$

$$x_0 (= A - 1) \quad \{\boxed{1}, \boxed{5}, \boxed{20},$$

$$x_4 (= 100 - 1) + 1 \quad \boxed{100}\}$$

Es la cantidad de soluciones de:

$$x_0 + x_1 + x_2 + x_3 + x_4 = 100$$

$$0 \leq x_0 \quad 3 \leq x_1$$

$$1 \leq x_4 \quad 3 \leq x_2$$

$$3 \leq x_3$$

$$y_1 = x_1 - 3 \quad y_3 = x_3 - 3$$

$$y_2 = x_2 - 3$$

$$y_0 = x_0 \quad y_4 = x_4 - 1$$

$$y_0 + y_1 + y_2 + y_3 + y_4 = 100 - 10$$

$$= 90$$

$$CR_{90}^5 = \begin{pmatrix} 90+5-1 \\ 5-1 \end{pmatrix} = \begin{pmatrix} 94 \\ 4 \end{pmatrix}$$