

# Modelos de Computación.

## Práctica 2.

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### Resumen

Realización de al menos cuatro computaciones manuales para cada uno de los L-programas analizados en clase de teoría.

## 1. Función Pseudo-Identidad

### 1.1. Computación para la entrada $X = 1$

$$(1, \langle X = 1, Y = 0 \rangle) \sim (2, \langle X = 0, Y = 0 \rangle) \sim (3, \langle X = 0, Y = 1 \rangle) \sim (4, \langle X = 0, Y = 1 \rangle)$$

### 1.2. Computación para la entrada $X = 0$

$$(1, \langle X = 0, Y = 0 \rangle) \sim (2, \langle X = 0, Y = 0 \rangle) \sim (3, \langle X = 0, Y = 1 \rangle) \sim (4, \langle X = 0, Y = 1 \rangle)$$

### 1.3. Computación para la entrada $X = 2$

$$(1, \langle X = 2, Y = 0 \rangle) \sim (2, \langle X = 1, Y = 0 \rangle) \sim (3, \langle X = 1, Y = 1 \rangle) \sim (1, \langle X = 1, Y = 1 \rangle) \sim \\ (2, \langle X = 0, Y = 1 \rangle) \sim (3, \langle X = 0, Y = 2 \rangle) \sim (4, \langle X = 0, Y = 2 \rangle)$$

### 1.4. Computación para la entrada $X = 3$

$$(1, \langle X = 3, Y = 0 \rangle) \sim (2, \langle X = 2, Y = 0 \rangle) \sim (3, \langle X = 2, Y = 1 \rangle) \sim (1, \langle X = 2, Y = 1 \rangle) \sim \\ (2, \langle X = 1, Y = 1 \rangle) \sim (3, \langle X = 1, Y = 2 \rangle) \sim (1, \langle X = 1, Y = 2 \rangle) \sim (2, \langle X = 0, Y = 2 \rangle) \sim \\ (3, \langle X = 0, Y = 3 \rangle) \sim (4, \langle X = 0, Y = 3 \rangle)$$

## 2. Función Identidad

### 2.1. Computación para la entrada $X = 0$

$$(1, < X = 0, Z = 0, Y = 0 >) \sim (2, < X = 0, Z = 0, Y = 0 >) \sim (3, < X = 0, Z = 1, Y = 0 >) \sim (8, < X = 0, Z = 1, Y = 0 >)$$

### 2.2. Computación para la entrada $X = 1$

$$(1, < X = 1, Z = 0, Y = 0 >) \sim (4, < X = 1, Z = 0, Y = 0 >) \sim (5, < X = 0, Z = 0, Y = 0 >) \sim (6, < X = 0, Z = 0, Y = 1 >) \sim (7, < X = 0, Z = 1, Y = 1 >) \sim (1, < X = 0, Z = 1, Y = 1 >) \sim (2, < X = 0, Z = 1, Y = 1 >) \sim (3, < X = 0, Z = 2, Y = 1 >) \sim (8, < X = 0, Z = 2, Y = 1 >)$$

### 2.3. Computación para la entrada $X = 2$

$$(1, < X = 2, Z = 0, Y = 0 >) \sim (4, < X = 2, Z = 0, Y = 0 >) \sim (5, < X = 1, Z = 0, Y = 0 >) \sim (6, < X = 1, Z = 0, Y = 1 >) \sim (7, < X = 1, Z = 1, Y = 1 >) \sim (1, < X = 1, Z = 1, Y = 1 >) \sim (4, < X = 1, Z = 1, Y = 1 >) \sim (5, < X = 0, Z = 1, Y = 1 >) \sim (6, < X = 0, Z = 1, Y = 2 >) \sim (7, < X = 0, Z = 2, Y = 2 >) \sim (1, < X = 0, Z = 2, Y = 2 >) \sim (2, < X = 0, Z = 2, Y = 2 >) \sim (3, < X = 0, Z = 3, Y = 2 >) \sim (8, < X = 0, Z = 3, Y = 2 >)$$

### 2.4. Computación para la entrada $X = 3$

$$(1, < X = 3, Z = 0, Y = 0 >) \sim (4, < X = 3, Z = 0, Y = 0 >) \sim (5, < X = 2, Z = 0, Y = 0 >) \sim (6, < X = 2, Z = 0, Y = 1 >) \sim (7, < X = 2, Z = 1, Y = 1 >) \sim (1, < X = 2, Z = 1, Y = 1 >) \sim (4, < X = 2, Z = 1, Y = 1 >) \sim (5, < X = 1, Z = 1, Y = 1 >) \sim (6, < X = 1, Z = 1, Y = 2 >) \sim (7, < X = 1, Z = 2, Y = 2 >) \sim (1, < X = 1, Z = 2, Y = 2 >) \sim (4, < X = 1, Z = 2, Y = 2 >) \sim (5, < X = 0, Z = 2, Y = 2 >) \sim (6, < X = 0, Z = 2, Y = 3 >) \sim (7, < X = 0, Z = 3, Y = 3 >) \sim (1, < X = 0, Z = 3, Y = 3 >) \sim (2, < X = 0, Z = 3, Y = 3 >) \sim (3, < X = 0, Z = 4, Y = 3 >) \sim (8, < X = 0, Z = 4, Y = 3 >)$$