

Nodo consistencia

$$x_1 \in N, \quad x_2 \in N, \quad \dots \quad x_n \in N$$

$$x_1 \geq 0, \quad x_2 \geq 0, \quad \dots \quad x_n \geq 0$$

$$x_1 \geq 0$$

$$x_2 \geq 0$$

$$x_n \geq 0$$

Arco consistencia

$$- \langle x < y ; x \in [2..6], y \in [3..7] \rangle$$

is arc consistent.

$$- \langle x < y ; x \in [2..7], y \in [3..7] \rangle$$

is not arc consistent.

$$\forall b \in Y, \exists a \in X \quad c(a, b)$$

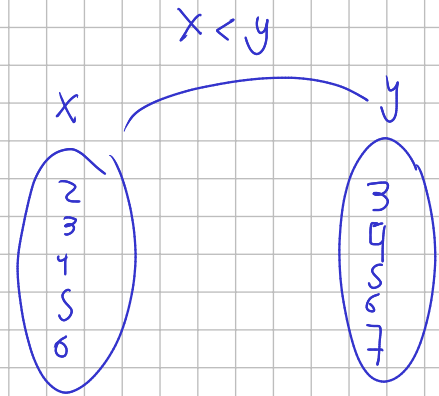
$$3 \rightarrow \{2\}$$

$$4 \rightarrow \{2, 3\}$$

$$5 \rightarrow \{2, 3, 4\}$$

$$6 \rightarrow \{2, 3, 4, 5\}$$

$$7 \rightarrow \{2, 3, 4, 5, 6\}$$



$$\forall a \in X, \exists b \in Y \quad c(a, b)$$

$$2 \rightarrow [3, 7] \checkmark$$

$$3 \rightarrow [4, 7]$$

$$4 \rightarrow [5, 7]$$

$$5 \rightarrow [6, 7]$$

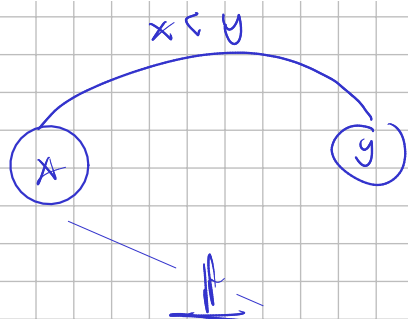
$$6 \rightarrow \{7\}$$

– $\langle x < y ; x \in [2..6], y \in [3..7] \rangle$

is arc consistent.

– $\langle x < y ; x \in [2..7], y \in [3..7] \rangle$

is not arc consistent.



$X \longrightarrow Y$

2 [3, 7]

3 [4, 7]

4 [5, 7]

5 [6, 7]

6 {7}

7 ~~○~~

$\langle x = y, x \neq y ; x \in \{a, b\}, y \in \{a, b\} \rangle$.

$x = y$

$x \longrightarrow y$

$x = a \iff y = a$
 $x = b \iff y = b$

arc
consistent

$x \neq y$

$x = a \iff y = b$
 $x = b \iff y = a$

$\langle x = y ; x \in \{a, b\}, y \in \{a\} \rangle$.

¿Es consistente? -- ¿Existe solución? $x = a$ y $y = a$

$x \longrightarrow y$

$a \longrightarrow a$

$b \longrightarrow \cancel{\circ}$

No es arco consistente