



IT-UNIVERSITY OF COPENHAGEN

INTELLIGENT SYSTEMS PROGRAMMING

## Mandatory exercise 6

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# 1 Binary CSP

## 1.1 1

$C_{X_1X_5}$  We can remove 3 from  $D_1$  since  $D_5$  only contains 1 and 2 which only allow 1 or 2 for  $X_1$ .

$C_{X_1X_2}$  We can remove 5 from  $D_2$  since  $D_1$  only contains 1 and 2.

$C_{X_2X_4}$  We can remove 7 from  $D_2$  since  $D_2$  only contains 7 and 8.

$C_{X_2X_3}$  We can remove 1 and 2 from  $D_3$  since  $D_2$  only contains 8.

$$D_1 = \{2\}, D_2 = \{8\}, D_4 = \{4\}, D_4 = \{0, 2\}, D_5 = \{1\}$$

## 1.2 2

$$X_1 = 1, X_2 = 8, X_3 = 4, X_4 = 0, X_5 = 2$$

## 1.3 3