

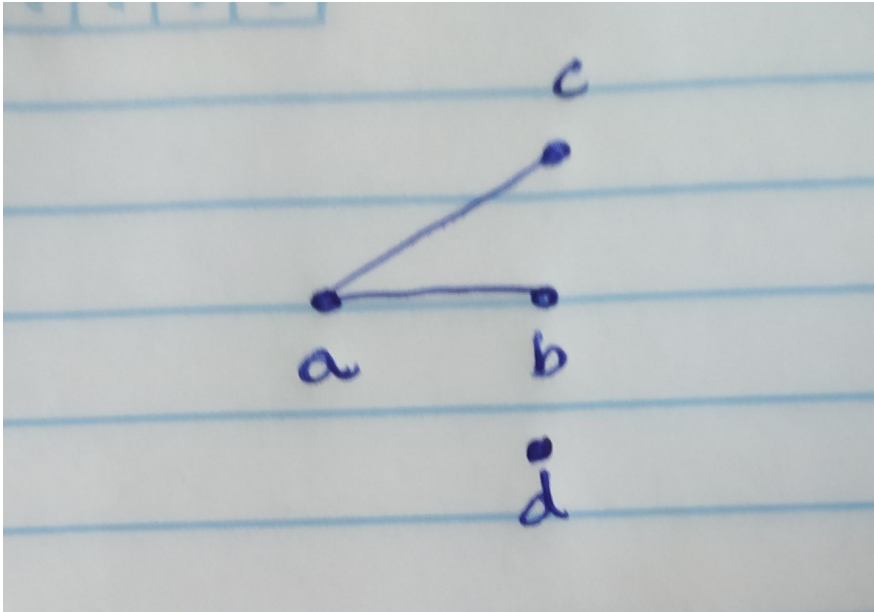
## PROVA 2 - MATEMÁTICA DISCRETA

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1)

- a) vários-para-vários
- b) vários-para-um
- c) um-para-um
- d) um-para-vários

2)

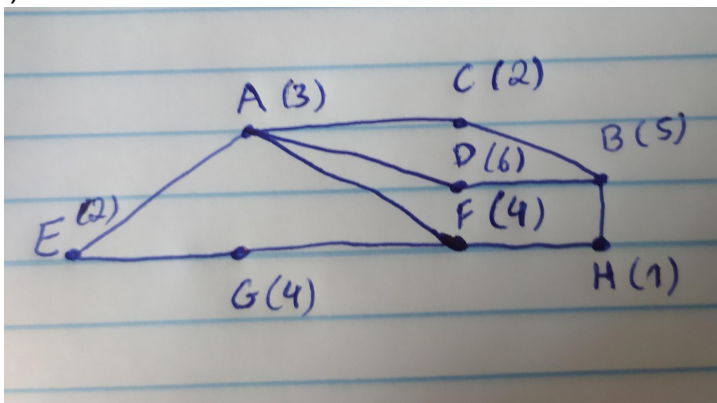


3)  $\{\{1,1\}, \{2,2\}, \{3,3\}, \{4,4\}, \{5,5\}, \{1,3\}, \{3,5\}, \{2,4\}, \{4,5\}\}$

4)

- a) (1, 3), (3, 3)
- b) (4, 2), (5, 3)
- c) (5, 0), (2, 2)
- d) (1, 1), (3, 9)

5)



6)

a)  $f(A) = \{3, 9, 15\}$

b)  $f(A) = \{x \in \mathbb{Z} \mid f(y) = 6y\}$

7)

a) 18

b) 16

c)  $3x + 3$

d)  $3x + 1$

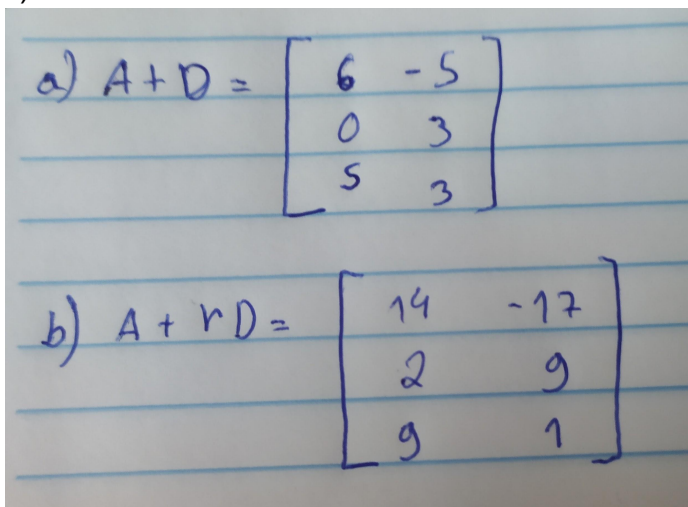
8)

a)  $f(x) = x/2$

b)  $f(x) = \sqrt[3]{x}$

c)  $f(x) = 3x - 4$

9)



Handwritten calculations on lined paper:

a)  $A + D = \begin{bmatrix} 6 & -5 \\ 0 & 3 \\ 5 & 3 \end{bmatrix}$

b)  $A + rD = \begin{bmatrix} 14 & -17 \\ 2 & 9 \\ 9 & 1 \end{bmatrix}$