

To find x & y we form the system

$$b) \begin{cases} x+y=3 & \text{--- (1)} \\ (2x+y=5) & (-1) \end{cases}$$

Sub. value of x in eqn (1) to get

$$x+y=3$$

$$\text{So, } 2+y=3$$

$$\text{So, } \begin{cases} x+y=3 \\ -2x-y=-5 \end{cases} \text{ add}$$

$$-x=-2$$

$$\boxed{x=2}$$

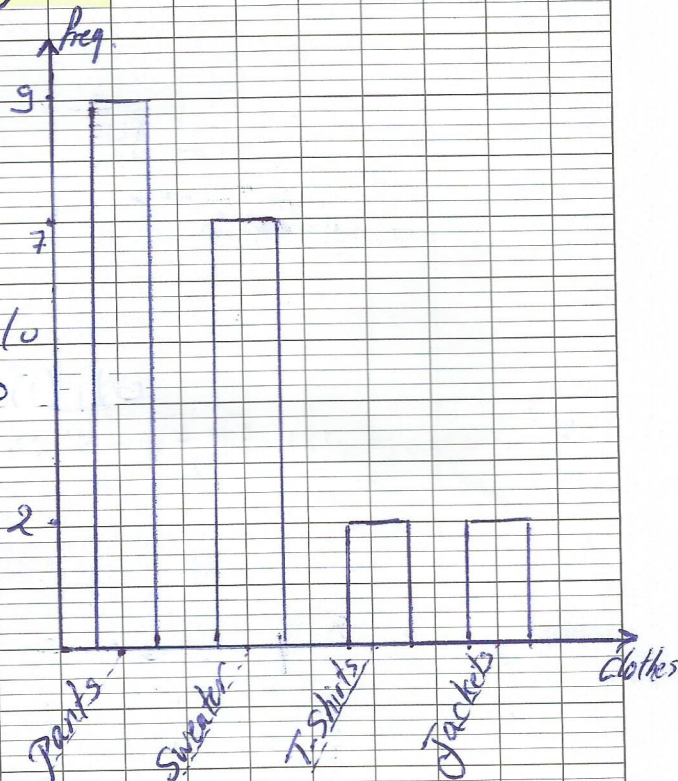
$$\text{Thus, } \boxed{y=1}$$

$$3) \text{ Frequency of pants} = 2x - y + 4 \\ = 4 - 1 + 4 \\ = \boxed{7}$$

$$\text{Frequency of sweater} = -2x + 3y + 10 \\ = -2(2) + 3(1) + 10 \\ = \boxed{9}$$

$$\text{Frequency of T-shirts} = x + y - 1 \\ = 2 + 1 - 1 \\ = \boxed{2}$$

$$\text{Frequency of jackets} = 2xy - 2 \\ = 2(2)(1) - 2 \\ = \boxed{2}$$



Part-B:

1a) The ICF of shoe size 38 means the percentage of shoes whose size is at most 38 is 33.75%

Shoe size	37	38	41	42	Total
n_i	5	$a = 22$	17	$b = 36$	80
% ICF	$\frac{5}{80} \times 100 = 6.25\%$	33.75%	$\frac{44}{80} \times 100$	$\frac{80}{80} \times 100 = 100$	

$$\frac{a}{80} \times 100 = 33.75 - 6.25 \quad | \quad 5 + 22 + 17 + b = 80$$

$$\frac{a}{80} \times 100 = 27.5 \times 4 = 22 \quad | \quad b = 80 - 44 = 36$$