

Q-3

$$ax + by^2 + c$$

known Point & Pixel value

$$(x_1, y_1) \rightarrow P_1$$

$$(x_2, y_2) \rightarrow P_2$$

$$(x_3, y_3) \rightarrow P_3$$

$$\begin{bmatrix} x_1 & y_1^2 & 1 \\ x_2 & y_2^2 & 1 \\ x_3 & y_3^2 & 1 \end{bmatrix} \begin{bmatrix} a \\ b \\ c \end{bmatrix} = \begin{bmatrix} P_1 \\ P_2 \\ P_3 \end{bmatrix}$$

$\underbrace{\hspace{10em}}_A \quad \underbrace{\hspace{2em}}_{\downarrow} \quad \underbrace{\hspace{2em}}_{\downarrow}$
 $\hspace{10em} X \hspace{10em} B$

$$AX = B$$

$$A^{-1}AX = A^{-1}B$$

$$\boxed{X = A^{-1}B}$$

Q-2 Don't know, please provide approach/solution.

Q-1 (a) $(0,0)$ ~~(0,0)~~ $(1,0)$
1 2

$(0,1)$ $(1,1)$
4 5

$(0,0)$ 1	$(1,0)$ 1	$(2,0)$ 2	$(3,0)$ 2
$(0,1)$ 4	$(1,1)$ 4	$(2,1)$ 5	$(3,1)$ 5

$$\left\lfloor \left(\frac{x}{2}, y \right) \right\rfloor$$

floor.