Bài 7:

a/.

$$A = \begin{pmatrix} 3 & 5 \\ 1 & 2 \end{pmatrix} \Rightarrow \lambda I - A = \begin{pmatrix} \lambda - 3 & -5 \\ -1 & \lambda - 2 \end{pmatrix}$$

$$\det(\lambda I - A) = (\lambda - 3)(\lambda - 2) - 5$$
$$= \lambda^2 - 3\lambda - 2\lambda + 6 - 5$$
$$= \lambda^2 - 5\lambda + 1$$

Bài 8:

a/.

$$A = \begin{pmatrix} -3 & 5 \\ 10 & 2 \end{pmatrix} \Rightarrow \lambda I - A = \begin{pmatrix} \lambda + 3 & -5 \\ -10 & \lambda - 2 \end{pmatrix}$$

$\Rightarrow \det(\lambda I - A) = 0$

$\Rightarrow (\lambda + 3)(\lambda - 2) - 50 = 0$

$\Rightarrow \lambda^2 - 2\lambda + 3\lambda - 6 - 50 = 0$

$\Rightarrow \lambda^2 + \lambda - 56 = 0$

$\Leftrightarrow \left[\begin{array}{l} \lambda = 7 \\ \lambda = -8. \end{array}\right.$

Bài 10

$$A = \begin{pmatrix} -1 & 5 & -2 \\ 4 & 1 & -2 \\ -2 & 8 & 1 \end{pmatrix}$$

$(1,2)$ - cofactor $= -13$

$(3,1)$ - cofactor $= -11$.