1a)

$$\begin{vmatrix} 1 & 2 \\ 3 & 4 \end{vmatrix} = 1 \cdot 4 - 2 \cdot 3 = \boxed{-2}$$

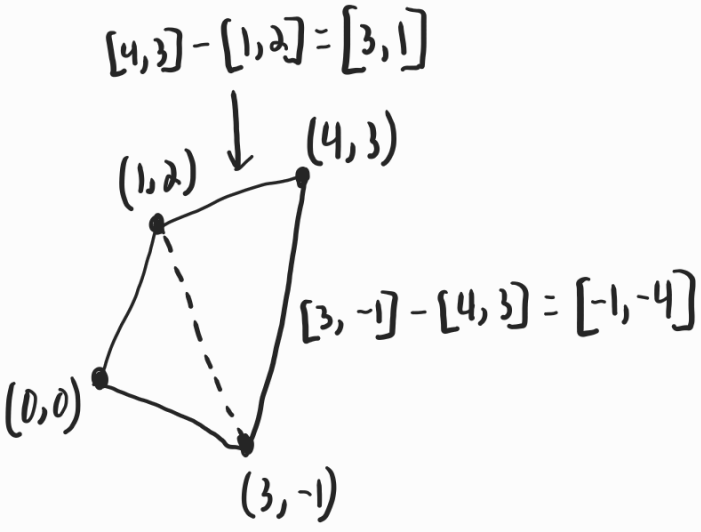
1b)

$$\begin{vmatrix} 1 & -2 \\ -3 & 4 \end{vmatrix} = 1 \cdot 4 - (-2)(-3) = \boxed{-2}$$

1c)

$$\begin{vmatrix} 3 & 4 \\ 1 & 2 \end{vmatrix} = 3 \cdot 2 - 4 \cdot 1 = \boxed{2}$$

2)



$$A = \text{abs}\left(\frac{1}{2}\begin{vmatrix} 1 & 2 \\ 3 & -1 \end{vmatrix}\right) + \text{abs}\left(\frac{1}{2}\begin{vmatrix} 3 & 1 \\ -1 & -4 \end{vmatrix}\right) = 3 + \frac{11}{2} = \boxed{\frac{17}{2}}$$