$\qquad$
4th January

| $\mathbf{A}=\left(\begin{array}{cc}9 & -1 \\ 0 & 4\end{array}\right)$ |  |
| :--- | :--- |
| Work out the matrix 3A |  |
|  |  |

Shown is a cyclic quadrilateral


Find the values of x and y

The coefficient of the $x^{2}$ term in the expansion of $(x+a)^{6}$ is 3840

Find the possible values of a

