$\qquad$

| 9th March |  |
| :---: | :---: |
| Line 2 <br> Line 1 | Line 1 has equation $y=3 x-12$ <br> Find the coordinates of $P$ <br> Find the equation of Line 2 |
| OABC is transformed by the matrix $\left(\begin{array}{ll} 0 & 1 \\ 1 & 0 \end{array}\right)$ <br> to give $O^{\prime} B^{\prime} C^{\prime}$ <br> Draw and label OA'B'C' |  |
| Describe the transformation fully. |    -1     <br>    -2     <br>    -3     |
| Find the coordinates of the stationary points of the curve$y=\frac{1}{3} x^{3}+5 x^{2}+21 x+3$ |  |

