5

GCSE VECTORS

24 *OACB* is a parallelogram.

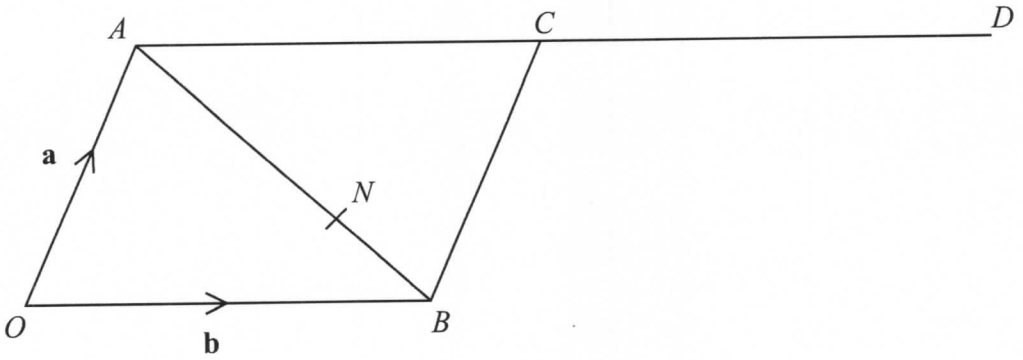

Diagram **NOT** accurately drawn

$\overrightarrow{OA} = \mathbf{a}$ and $\overrightarrow{OB} = \mathbf{b}$
D is the point such that $\overrightarrow{AC} = \overrightarrow{CD}$
The point N divides AB in the ratio 2 : 1

(a) Write an expression for $\overrightarrow{ON}$ in terms of **a** and **b**.

.....

(3)

*(b) Prove that *OND* is a straight line.

(3)

(Total for Question 24 is 6 marks)

TOTAL FOR PAPER IS 100 MARKS