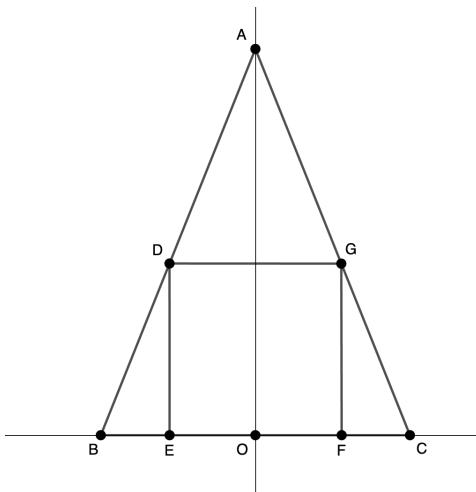


In the figure below, the origin is marked as O , A lies on the y -axis, and points B, C, E, F all lie on the x -axis with $EO = OF$. Point D lies on segment AB , and point G lies on segment AC . Quadrilateral $DEFG$ is a square. the coordinates of A and B are $(0, 5)$ and $(-2, 0)$ respectively. Given this information, answer the questions below.¹

(1): Find the equation of line AC .

(2): Find the coordinates of E .



¹Aichi Prefecture