The line L has equation $y = 2x + 8$

The line L crosses the x-axis at the point A.

The line M is perpendicular to Line L and passes through the point A

Find the coordinates of the point A.

Find equation of the Line M.

M is the midpoint of AC

Work out the vector $\vec{LM}$

Show that L, M and B lie on a straight line.

Express as a single fraction

$$\frac{b}{a} - \frac{a - 1}{b + 1}$$