10th January

Given



$$2^{9} = \frac{1}{8}$$

Find y

Show the equation $x^2 - 4x + 1 = 0$ can be written in the form

$$x = 4 - \frac{1}{x}$$

 $\chi^2 = 4\chi - 1$ $\chi = 4 - \frac{1}{\chi}$

42 -3

Starting with $x_0 = 3$, use the iteration formula

$$x_{n+1} = 4 - \frac{1}{x_n}$$

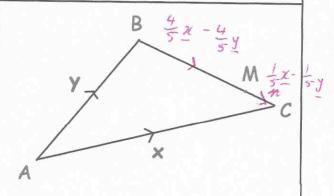
twice to find an estimate of the solution of $x^2 - 4x + 1 = 0$

$$\chi_{0} = \frac{1}{3}$$
 $\chi_{1} = \frac{1}{3}$
 $\chi_{2} = \frac{4}{11} = 3.7272...$

Express these vectors in terms of \mathbf{x} and \mathbf{y}

BM

 \overrightarrow{AM}



ABC is a triangle.

M lies on BC such that BM = $\frac{4}{5}$ BC

Express these vectors in terms of \mathbf{x} and \mathbf{y}