

thus  $(IO)$  is parallel to  $(MB)$  (2 lines perpendicular to the same straight line are parallel).

b) In triangle  $BAM$ :

$O$  is the midpt of  $[AB]$  (or is the center of  $(c)$  of diameter  $[AB]$ ) given

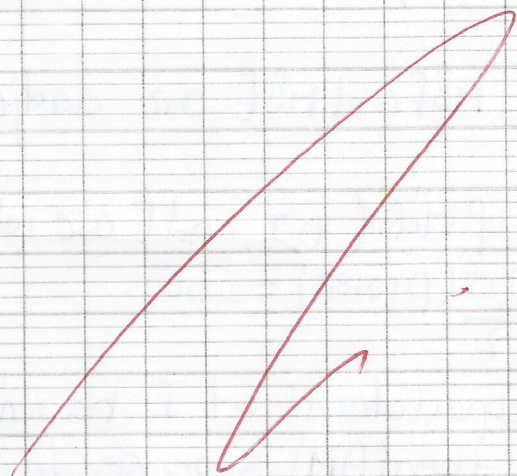
$(IO)$  is parallel to  $[MB]$  (proved)

So,  $I$  is the midpoint of  $[AM]$  and  $IO = \frac{MB}{2}$   
(inverse of midpoint theorem)

thus,  $I$  belongs to  $(c')$  of center  $O$  and radius  $\frac{MB}{2}$  since  $IO = \frac{MB}{2}$ .

c)  $\hat{OIA} = 90^\circ$  (proved) and  $(IO)$  is a radius of circle  $(c')$  (proved) and center  $O$ .

Thus,  $(AM)$  is tangent to  $(c')$  at  $I$  since the angle formed between the radius and  $(AM)$  is  $90^\circ$  (proved).



P. 10.