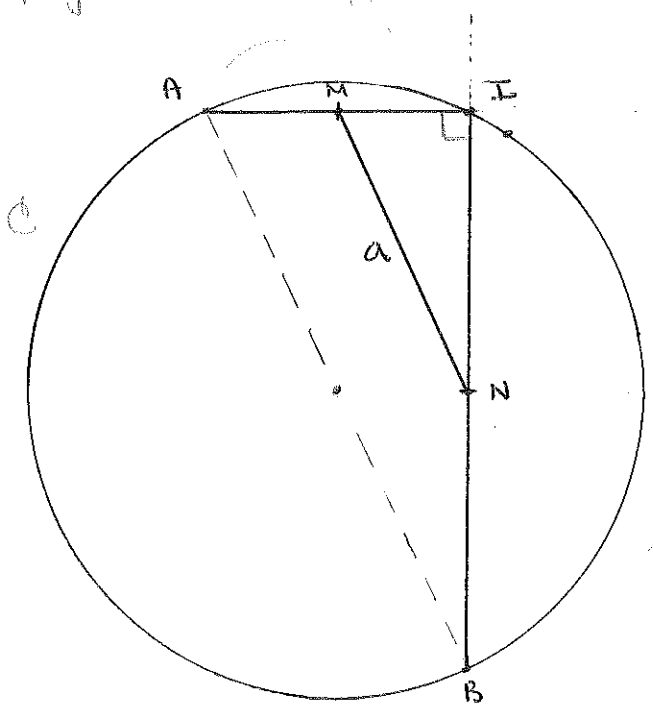


Group work on  
the last page!

19.



Thales' thm: says if AB is the diameter  
of circle C, then ~~any~~ for any point I,  
on the circle  $\angle AIB = 90$ .  
(Biconditional statement)

Thales' thm  $\Rightarrow$  AB is the diameter, thus  
 $OA = \text{radius of } C = OB$

$\frac{MI}{NI} = \frac{AI}{BI}$  and they (both  $\Delta$ 's MIN and AIN) share

yes!  
same right angle so they are similar. thus

$\frac{MI}{AI} = \frac{a}{AB}$ , but  $\frac{MI}{AI} = \frac{1}{2}$ , thus

$\frac{a}{AB} = \frac{1}{2}$  and  $AB = 2a$  ✓  
Q.E.D.