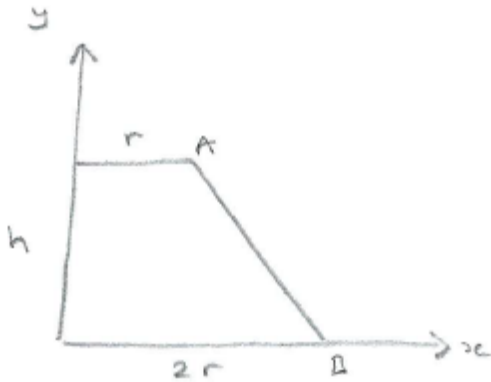


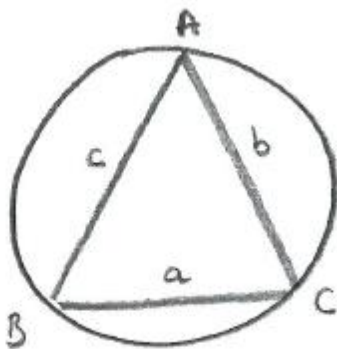
Geometry - Exercises (2 pages; 7/10/18)

(1) Find as many ways as possible of deriving the equation of the sloping side of the trapezium shown below.



(2) Find the equation of the circle passing through the points
A (2,8) , B (7,3) and D (5,7)

(3) ABC is a triangle circumscribed by a circle of radius R, as shown in the diagram below.



Show that (i) $\frac{a}{\sin A} = 2R$ (ii) the area of the triangle is $\frac{abc}{4R}$

(4) Angle Bisector Theorem

Referring to the diagram below, the Angle Bisector theorem says that

$$\frac{BD}{DC} = \frac{AB}{AC}$$

Prove the Angle Bisector Theorem.

