Daily Question – Pure Mathematics - Day 6

Topic: Radians - sectors

A sector AOB, of a circle centre O, has radius r cm and angle θ radians.

Given that the area of the sector is 6 cm^2 and that the perimeter of the sector is 10 cm,

(a) show that

$$3\theta^2 - 13\theta + 12 = 0$$

(4)

(b) Hence find possible values of r and θ.

(3)

(Total for question = 7 marks)