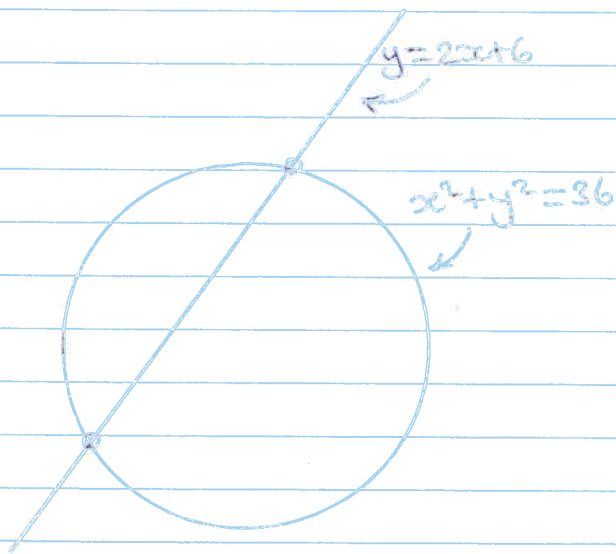


(2)

Q2 The formula $M = M_0(0.85)^t$ gives the number of moths (M) in a spray zone t days after the zone is sprayed.

M_0 is the initial number of moths that were in the zone. If there were 800 moths initially in the zone, how many days after spraying would it take the population to fall to 500 moths?

Q3



A circle is represented by the equation $x^2 + y^2 = 36$

The equation $y = 2x + 6$ cuts the circle.

Find the points of intersection where the line and circle intersect.