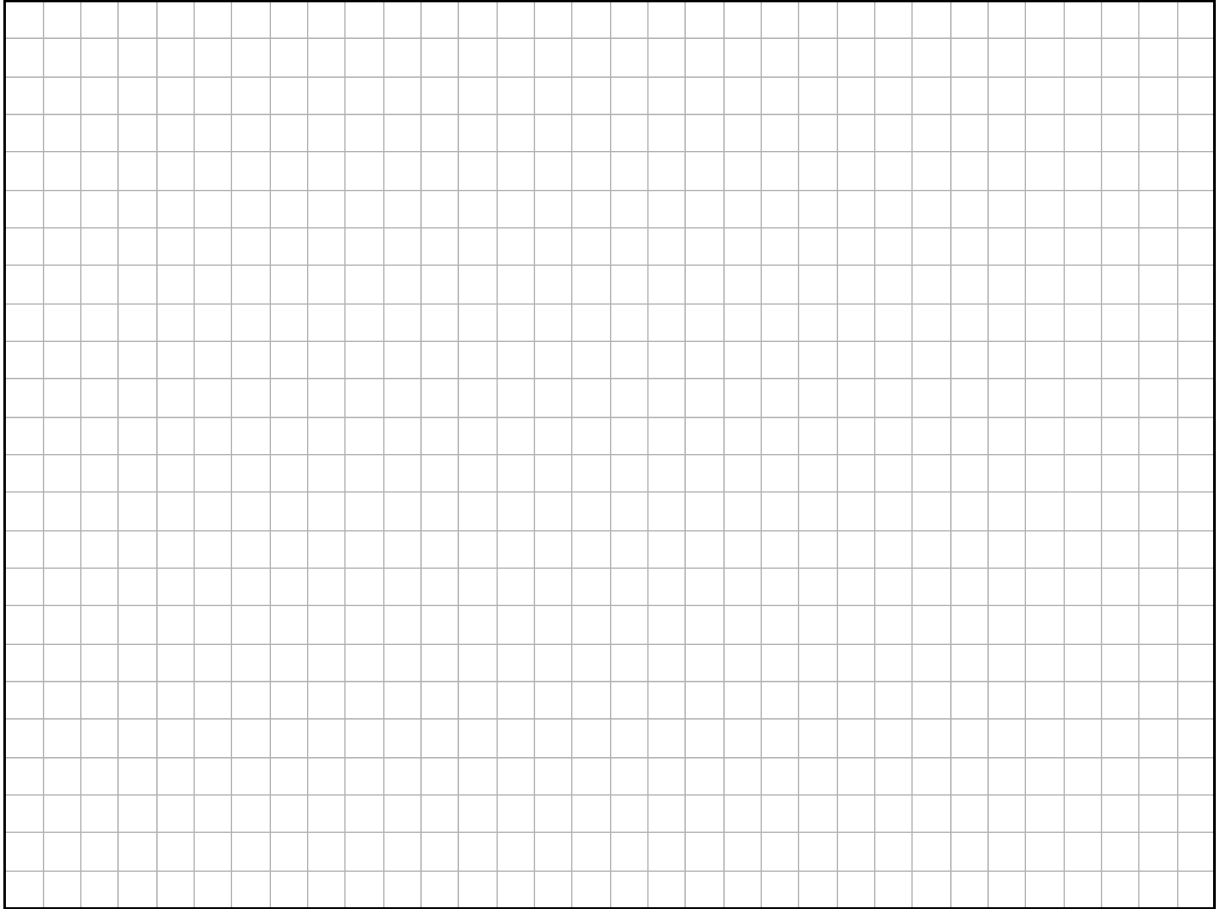


Question 3

(25 marks)

- (a) The point $(-2, k)$ is on the circle $(x - 2)^2 + (y - 3)^2 = 65$.
Find the two possible values of k , where $k \in \mathbb{Z}$.



- (b) The circle s is in the first quadrant. It touches both the x -axis and the y -axis. The line $t: 3x - 4y + 6 = 0$ is a tangent to s as shown. Find the equation of s .

