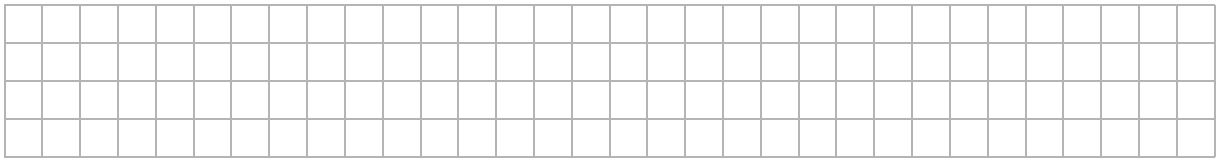


Question 5

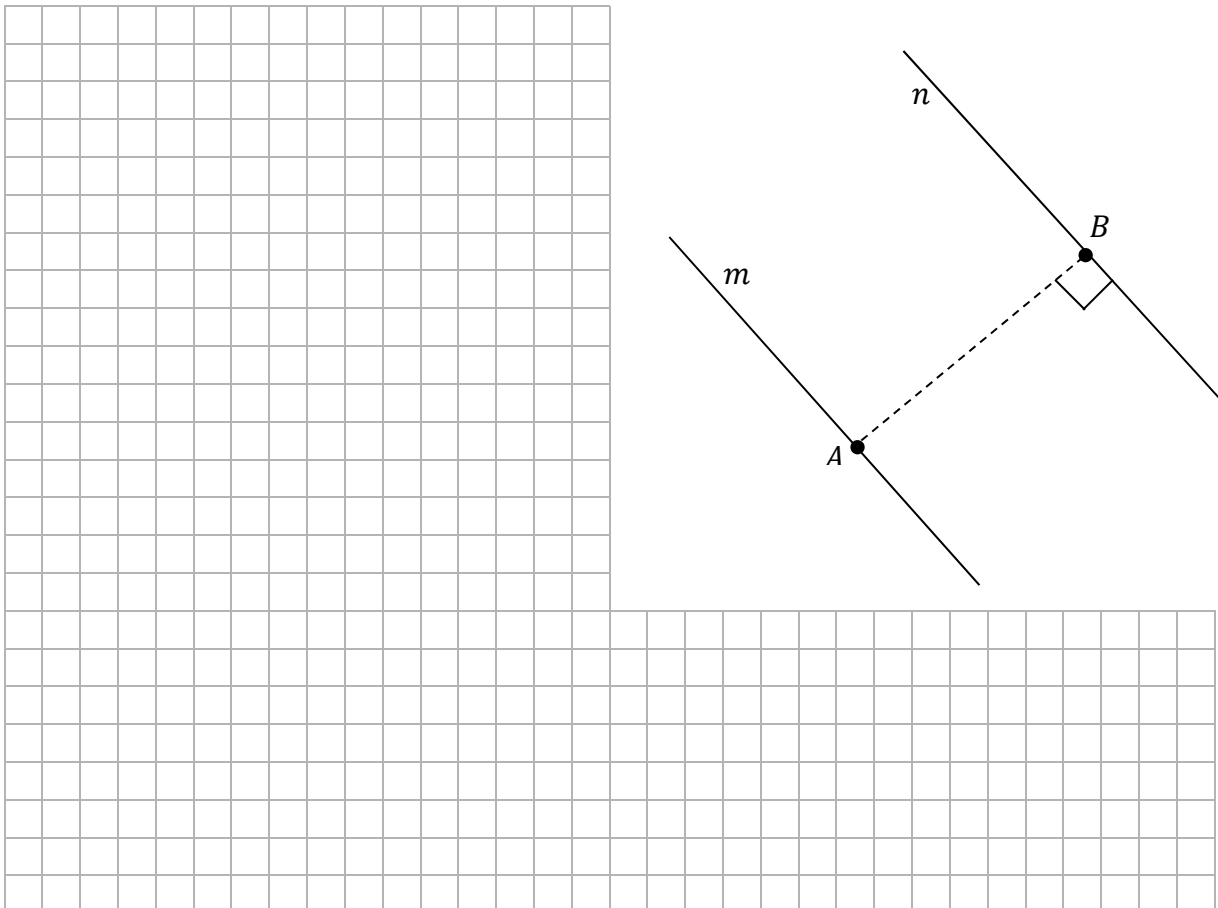
(25 marks)

The line $m: 2x + 3y + 1 = 0$ is parallel to the line $n: 2x + 3y - 51 = 0$.

(a) Verify that $A(-2, 1)$ is on m .



(b) Find the coordinates of B , the point on the line n closest to A , as shown below.



- (c) Two touching circles, s and t , are shown in the diagram. m is a tangent to s at A and n is a tangent to t at B . The ratio of the radius of s to the radius of t is $1 : 3$. Find the equation of s .

