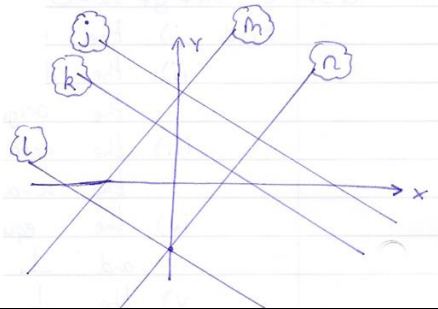


Q1. Find the area of the triangle with vertices (1, 1), (8, -5) and (5, -2).	Q3. A = (5, -9) and B = (-3, 3). M is the midpoint of [AB] and N is the midpoint of [AM]. (i) Calculate the coordinates of M. (ii) Calculate the coordinates of N. (iii) Calculate the coordinates of the point which divides [AB] internally in the ratio 1:3. (iv) Explain the link between part (ii) and part(iii)
Q2. (i) Show that p(k - 2, 7k - 7) is a point on the line m: 7x - y + 7 = 0 (ii) Find the equation of the line n, on which the point q(t + 1, 3 - t) lies.	Q5. Find the measure of the acute angle between the two lines y = 4x - 1 and y = 2x + 3 and give your answer correct to the nearest degree.
Q4. p(4, -3) and q(-4, 9) are two points. Find the coordinates of the point, which divides [pq] internally in the ratio 3:1.	Q8. L and K are two lines passing through the point of intersection of 2x - 3y + 1 = 0 and x + 2y = 3. (i) If (2, -1) is on L, find the equation of L. (ii) If K is parallel to 3x - y = 0, find the equation of K. (iii) Find the angles between the two lines L and K.
Q6. Show that the line containing the points (3, -6) and (-7, 12) is perpendicular to the line 5x - 9y + 6 = 0.	Q13. The equations of 4 lines are given below. Which equation corresponds to which line in the diagram? (i) x + 2y = -4 (ii) 2x - y = -4 (iii) x + 2y = 8 (iv) 2x - y = 2
Q7. A ship is travelling along the line 5x - y = 18. A lighthouse is located at the point (2, 4). Find the closest the ship gets to the lighthouse, correct to one decimal places:	
Q9. Find the equation of a line which passes through the point of intersection of 5x + y + 8 = 0 and x + 2y - 2 = 0 and which contains the point (0, 0).	
Q10. The distance from (5, 6) to (k, 2) is 2√5. Find two possible values of k.	
Q11. Find the value of b if the lines x + (b - 4)y = 4 and bx + y = 18 are perpendicular.	
Q12. a(-7, 3) and b(8, -2) are two points. Find the coordinates of the point that divides [ab] in the ratio 2:3.	
Q14. The line L contains the points (5, -1) and (0, 3). The line K has equation 25x + ky - 31 = 0. If K and L are perpendicular, find the value of k.	Q15. Find the equations of two lines that pass through the point (4, 3) and which make an angle of 45° with 6x + y - 5 = 0.
Q16. If the point (-2, a) is equidistant from the lines 4x + 3y - 3 = 0 and 12x + 5y - 13 = 0, find the value of a.	Q17. Find the equations of two lines which contain the point (4, 1) and are a distance of 2√2 units from the point (1, 2).
Q18. The line 3x + 2y = c intersects the x-axis at p and the y-axis at q. If the area of triangle opq is 24 units ² , find the value of c.	Q19. Find the equations of two lines parallel to 3x - 4y + 1 = 0 and 2 units away from it.

Answers:

Q1. $\frac{3}{2}$	Q2. x + y - 4 = 0	Q3. (i) (1, -3) (ii) (3, -6) (iii) (3, -6)	Q4. (-2, 6)	Q5. 13°
Q7. 2.4	Q8. (i) 2x + y = 3 (ii) 3x - y = 2 (iii) 45°, 135°	Q9. x + y = 0	Q10. 3, 7	Q11. b = 2
Q12. (-1, 1)	Q13. (i) l (ii) m (iii) j (iv) n	Q14. -20	Q15. 5x + 7y - 41 = 0 and 7x - 5y - 13 = 0	
Q16. a = -3 or a = 5.25	Q17. 7x + y - 29 = 0 and x - y - 3 = 0		Q18. 12√2	
Q19. 3x - 4y - 9 = 0 and 3x - 4y + 11 = 0				