Straight Lines

Find the equation of the line through the point $(3,-5)$ which is parallel the line with equation $3x + 2y - 5 = 0$.	†o (3)
Find the equation of the line through the point (2,3), perpendicular to the line $x - 4y + 7 = 0$.	(4)
P and Q are the points (-4,5) and (2,7). Find the equation of: The line PQ b) the perpendicular bisector of PQ	(5)
The point A has coordinates (7,4). The straight lines with equations x + 3y + 1 = 0 and 2x +5y = 0 intersect at B. a) Find the gradient of AB. b) Hence show that AB is perpendicular to only one of these two lines.	(3) .(4)
Prove that the points R(-2,12), S(1,-3) and T(5,-23) are collinear.	(3)
A line makes an angle of 40 ⁰ with the positive direction of the x-axis. Find the gradient of the line (correct to 2 decimal places).	(3)
The vertices of the triangle ABC are A(-2,6), B(-5,-4) and C(5,0). Find the equation of AM, the median from A. Find the equation of BP the altitude from B. The median from A and the altitude from B intersect at point T. Find the coordinates of T.	(3) (3) (3)
	Find the equation of the line through the point (3,-5) which is parallel the line with equation $3x + 2y - 5 = 0$. Find the equation of the line through the point (2,3), perpendicular to the line $x - 4y + 7 = 0$. P and Q are the points (-4,5) and (2,7). Find the equation of: The line PQ b) the perpendicular bisector of PQ The point A has coordinates (7,4). The straight lines with equations x + 3y + 1 = 0 and $2x + 5y = 0$ intersect at B. a) Find the gradient of AB. b) Hence show that AB is perpendicular to only one of these two lines. Prove that the points R(-2,12), S(1,-3) and T(5,-23) are collinear. A line makes an angle of 40° with the positive direction of the x-axis. Find the gradient of the line (correct to 2 decimal places). The vertices of the triangle ABC are A(-2,6), B(-5,-4) and C(5,0). Find the equation of AM, the median from A. Find the equation of BP the altitude from B. The median from A and the altitude from B intersect at point T. Find the coordinates of T.

34 marks