



Ross High School: Mathematics Department

Higher Mathematics: Homework 2

1. Find the equation of the line through the point $(2, 3)$ which is perpendicular to the line with equation $x - 4y + 7 = 0$. (4)

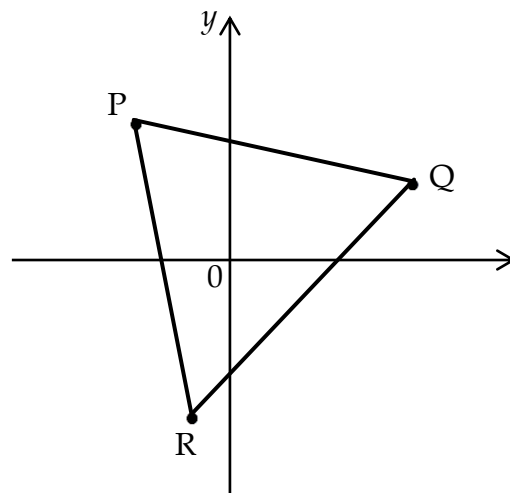
2. Find the equation of the perpendicular bisector of the line joining $A(2, -1)$ and $B(8, 3)$. (4)

3. Triangle PQR has vertices $P(-3, 5)$, $Q(7, 3)$ and $R(-1, -5)$, as shown.

(a) Find the equation of the median RM. (3)

(b) Find the equation of the altitude PA. (3)

(c) Find the coordinates of the point of intersection of RM and PA. (2)



4. Prove that the following set of points are collinear (3)

$A(-7,3)$ $B(-3,-4)$ $C(9,-25)$