MATH1040 Tutorial Assignment 6

1. Answer each of the following questions, showing all working.
   
   (a) Find the gradient and y-intercept of the line \(-2y - 3x + 3 = 0\)
   (b) Find the equation of the line with gradient \(m = -3\) passing through the point (-2, 0).
   (c) Find the equation of the straight line passing through the points (2, -1) and (4, -2).
   (d) Find the equation of the straight line passing through the points (3, 2) and (7, 2).
   (e) Find the equation of the line parallel to \(2y - 2x - 3 = 1\) and passing through the point (-4, 3).
   (f) Find the equation of the line perpendicular to \(-2y + 4x = 6\) and passing through the point (3, 0).
   (g) Find the distance between the points (3, 3) and (1, 1).

2. Answer each of the following questions, showing all working.
   
   (a) Find the gradient and y-intercept of the line \(2y - 2x + 3 = -3\)
   (b) Find the equation of the line with gradient \(m = -5\) passing through the point (1, -4).
   (c) Find the equation of the straight line passing through the points (1, -3) and (2, 0).
   (d) Find the equation of the straight line passing through the points (3, -1) and (3, 6).
   (e) Find the equation of the line parallel to \(2y + x + 3 = 1\) and passing through the point (-3, -1).
   (f) Find the equation of the line perpendicular to \(-y + 1 = 3\) and passing through the point (3, -2).
   (g) Find the distance between the points (-2, 3) and (1, 3).