

Quiz 11

This quiz is graded out of 10 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

Question 1. §3.4 #5 (2 marks) Use the given equation of a line to find a point on the line and a vector parallel to the line.

$$\vec{x} = (3 - 5t, -6 - t)$$

Question 2. §3.3 #32 (4 marks) Using projections find the distance between the point and the line.

$$(1, 8); \quad 3x + y = 5$$

Question 3. §3.3 #37 (4 marks) Find the distance between the given parallel planes.

$$2x - y - z = 5 \text{ and } -4x + 2y + 2z = 12$$