

Name: \_\_\_\_\_  
Student ID: \_\_\_\_\_

## Quiz 8

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.** (5 marks) §3.3 #37 Use projections to find the distance between the given parallel planes.

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

**Question 2.**

- a. (2 marks) §3.2 #7 Let  $\vec{v} = (-2, 3, 0, 6)$ . Find all scalars  $k$  such that  $\|k\vec{v}\| = 5$
- b. (3 marks) §3.2 #24c Find the radian measure of the angle  $\theta$  (with  $0 \leq \theta \leq \pi$ ) between  $\vec{u} = (-1, 1, 0)$  and  $\vec{v} = (0, -1, 1)$