Name: _____

Quiz 9

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. §3.1

9b. *(2 marks)* Find the initial point of the vector that is equivalent to $\vec{u} = (1,1,3)$ and whose terminal point is $B(-1,-1,2)$.

10b. *(2 marks)* Find the terminal point of the vector that is equivalent to $\vec{u} = (1,1,3)$ and whose initial point is $A(0,2,0)$.

Question 2. §3.2 #20b *(2 marks)* Find a unit vector that is oppositely directed to the given vector: $(3,-3,-3)$.

Question 3. §3.2 #24d *(4 marks)* Find the radian measure of the angle θ (with $0 \le \theta \le \pi$) between $\vec{u} = (1,-1,0)$ and $\vec{v} = (1,0,0)$.

Question 4. *(5 marks)* Given A a 4×4 matrix such that $\det(A) = 12$, evaluate $\det(\text{adj}((3A^T)^{-1}))$.