Name: _____

Quiz 10

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 #18b *(2 marks)* Determine whether the expression makes sense mathematically. If not, explain why.

$(\vec{u} \cdot \vec{v}) - \vec{w}$

Question 3. §3.2 #23b *(4 marks)* Find the cosine of the angle θ between $\vec{u} = (-6,-2)$ and $\vec{v} = (4,0)$.

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