# 234 Quiz 1 (Version 2)

*Section:* *Name:*

*15 minutes. Each problem has 5 points. There's a bonus problem on back.*

Given $A(0,0,1), B(2,1,3), C(-1,-1,0), D(-2,-4,5)$

1. Compute the distance from $D$ to the plane $ABC$. (Hint: You can get a normal vector of $ABC$ by computing $\vec{n} = \overrightarrow{AB} \times \overrightarrow{AC}$)
2. There is a parallelepiped with $AB, AC, AD$ to be some of its edges. Compute the volume of this parallelepiped.

Bonus: Suppose $|\vec{u}| = 2, |\vec{v}| = 1$. Suppose $|\vec{u} - \vec{v}| = 3/2$. Compute the angle between $\vec{u}$ and $\vec{v}$. (2 pts)