Name: _____

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. §3.5 #15 *(3 marks)* Find the area of a triangle in 3-space that has the given vertices

$P_1(2,6,-1), P_2(1,1,1), P_3(4,6,2)$

Question 2. §3.5 #17 *(3 marks)* Find the volume of the parallelepiped with sides $\vec{u} = (2,-6,2), \vec{v} = (0,4,-2)$, and $\vec{w} = (2,2,-4)$

Question 3. §3.5 Suppose that $\vec{u} \cdot (\vec{v} \times \vec{w}) = 3$. Find

25b *(2 marks)* $(\vec{v} \times \vec{w}) \cdot \vec{u}$

26a *(2 marks)* $\vec{v} \cdot (\vec{u} \times \vec{w})$