

Name:

January 14, 2016

MAC 2313.9256

Cyr

Quiz 1

You must show all work to receive full credit!!

**Problem 1.** Let  $\mathbf{u} = \langle 2, -1, 3 \rangle$  and  $\mathbf{v} = \langle -2, 3, 2 \rangle$ .

(a) (3 pts) Find a vector parametrization for the line passing through the point  $(1, 4, -6)$  in the direction of the vector  $\mathbf{u} + \mathbf{v}$ .

(b) (2 pts) Determine whether the angle between  $\mathbf{u}$  and  $\mathbf{v}$  is acute or obtuse.

(c) (5 pts) Find the area of the parallelogram spanned by  $\mathbf{u}$  and  $\mathbf{v}$ .