Math 2232 Quiz Chapter 11

In a regular 16 week term, this would be a no notes, scientific calculator only, in-class quiz. Consider this as you prepare for the in-class midterm and final this summer. Put your final answers in the space provided and show all work on this quiz paper for potential partial credit.

1. Recall that a plane is determined by any three points. Suppose a plane 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

contains. Find a ***pair*** of ***unit*** vectors each of

which is perpendicular to this plane. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Use vectors to find the area of the ***triangle*** formed by the points 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

in problem 1.

1. Consider the two vectors defined by  . 3. 



Find such that 

1. What is the angle between vectors  4. \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_

Show your answer in ***radians*** rounded to the nearest hundredth place.

1. What is the volume of the parallelepiped spanned by 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



1. A boatman wants to cross a canal that is 3 kilometers wide and wants to land at a point 2 kilometers upstream from his starting point. The current in the canal flows at 3.5 kilometers per hour and the speed of his boat in still water is 13 kilometers per hour.
2. In what direction should he steer? Be directionally clear in your a) \_\_\_\_\_\_\_\_\_\_\_

answer, rounding to the nearest tenth of a degree.

1. How long with the trip take? Round your answer to the nearest b) \_\_\_\_\_\_\_\_\_\_\_

hundredth of an hour.

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_