"QUIZ" for Lecture 2

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E-MAIL ADDRESS SCANNED .pdf OF COMPLETED QUIZ to DrZcalc3@gmail.com (Attachment: q2FirstLast.pdf) ASAP BUT NO LATER THAN FRIDAY Sept. 11, 8:00pm_____

1. Determine whether the two vectors are orthogonal and if not, whether the angle between them is acute or obtuse. **a**. <1,1,1>, <3,−2,−1> .

b. <4,3> , <2,−4> .

#a. <1,1,1> · <3,−2,−1>= (1×3-1×2-1×1) =0

the two vectors are orthogonal

#b. <4,3> · <2,−4>= (4×2-3×4) =-4

#-4<0

the two vectors are not orthogonal and the angle between them is obtuse.

2. Calculate v×w, if

v = <0,1,−1> , w = <1,−1,0 >.

#v×w=<1×0- (-1) × (-1) , 1× (-1) -0×0, 0× (-1) -1×1>=<-1,-1,-1>