KFUPM | Term 181 | Date: 9/10/2018

Mathematics & Statistics | MATH 201 | Duration:20 minutes

Quiz# 2

Name: | ID #: | Section:

Q1. Let $\vec{v} =< 2, -3, 1 >$ $\vec{w} =< -1, 1, 4 >$

a. Find two unit vectors parallel to the vector $2\vec{v} - 3\vec{w}$?

b. Find the vector projection of $\vec{v}$ on $\vec{w}$?

Q2: Check whether the four points P(3,0,1) Q(-1,2,5) R(5,1,-1) S(0,4,2) lie on the same plane or not?

Q3: Let $\vec{u}$ and $\vec{v}$ be two vectors in the 3D space that satisfy
$\vec{u} + 2\vec{v} =< 5,3,-4 >$
$3\vec{u} - \vec{v} =< 1,2,2 >$
Find the angle between $\vec{u}$ and $\vec{v}$?
