Quiz 2

MATH 20C, SUMMER SESSION I 2017

NAME: PID: SECTION:

The use of electronic devices, textbooks, or extra notes is not allowed for this quiz. The double bars $\|\|$ refer to the norm/magnitude/length of the vectors, as discussed in lecture.

Problem 1. Find the equation of the plane that is perpendicular to the line $l(t) = (\pi, \pi, \pi) + t(6, 19, 17)$ and contains the point $(7, 13, 17)$. (3 points)

Problem 2. Let $\vec{u}$ and $\vec{v}$ be vectors where $\|\vec{u}\| = 4$, $\|\vec{v}\| = 5$, and $\|\vec{u} + \vec{v}\| = 7$. Find $\|\vec{u} - 2\vec{v}\|$.
Hint: For any vector $\vec{a}$, $\|\vec{a}\|^2 = \vec{a} \cdot \vec{a}$. (3 points)