Math 173 - Quiz 1

Name _____

January 19, 2017

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (2 points) Find two unit vectors that have slope $-2/5$.

2. (3 points) Suppose $\vec{v} = 2\hat{\imath} - \hat{\jmath}$ and $\vec{u} = -7\hat{\imath} + 3\hat{\jmath}$. Use the law of cosines to find the angle between $\vec{v}$ and $\vec{u}$.

3. (2 points) Find a vector of magnitude 3 whose direction is the same as that of $\vec{w} = 2\hat{\imath} - 3\hat{\jmath}$.

4. (3 points) Find two vectors that are normal (perpendicular) to the graph of $y = \sin 2x$ at the point $(\pi, 0)$.