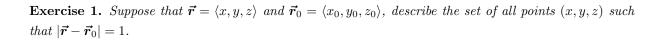
## Math 53 - Multivariable Calculus

Quiz # 3

## February 3rd, 2012



**Exercise 2.** Determine whether the two vectors  $\vec{A} = \langle -5, 3, 7 \rangle$  and  $\vec{B} = \langle 6, -8, 2 \rangle$  are perpendicular, parallel, or neither.

**Exercise 3.** Find a UNIT vector that is orthogonal to both  $\hat{\imath} + \hat{\jmath}$  and  $\hat{\imath} + \hat{k}$ . (Hint: Assume that  $\vec{A} = \langle a_1, a_2, a_3 \rangle$  is such a vector and use the orthogonality to determine the value of  $\vec{A}$ 's coefficients,  $a_i$ .)