1. Let , vector and are orthogonal, and ( is a real number ), compute and .

2. Suppose  is a orthonormal matrix，compute *a,b,c,d,e*。

3. Let .Compute the distance from y to the line through u and the origin.

4. True or false

1. Not every orthogonal set in Rn is linearly independent.
2. If a set has the property that  whenever ,then is an orthonormal set.
3. If the columns of an m\*n matrix are orthonormal, then the linear mapping preserves length.
4. The orthogonal projection of y onto v is the same as the orthogonal projection of onto whenever .
5. An orthogonal matrix is invertible.

书本6.2节课后习题：24, 25

书本6.3节课后习题：17, 24