**Worksheet 17**

1. Verify whether the partial derivatives of continuous or not.
2. Let . Find 

1. Find *k* such that  satisfies Helmholtz equation .
2. Find a tangent plane to  at point
3. Find a tangent plane to  at point 
4. Find a tangent plane to 
5. Find a plane tangent to  at 
6. Find linear approximation of  near 0.
7. Verify differentiability of  at 
8. Verify differentiability of at 0

