1049-46-102 **Osamu Hatori*** (hatori@math.sc.niigata-u.ac.jp). *Isometries between the groups of invertible elements in Banach algebras.*

We will consider a problem that isometries between the groups of invertible elemetns of Banach algberas induces isometrical real algebra isomorphisms. In particular, we show that for certain Banach algebras A (commutative) and B if T is an surjective isometry from A^{-1} onto B^{-1}, then $T/T(1)$ is an isometrical real algebra isomorphism. Thus we see that A^{-1} and B^{-1} are isometric as a metric space if and only if A^{-1} and B^{-1} are isometrically isomorphic as metrizable group. (Received March 02, 2009)