

1035-47-1154      **Brian C Lins\*** ([linsb@dickinson.edu](mailto:linsb@dickinson.edu)), Brian Lins, 201 Constitutional Ct., Mechanicsburg, PA  
17050. *Asymptotic behavior of nonexpansive maps in finite dimensional normed spaces.*

If  $X$  is a finite dimensional real normed space,  $C$  is a closed convex subset of  $X$  and  $f : C \rightarrow C$  is nonexpansive with respect to the norm on  $X$ , then we show that either  $f$  has a fixed point in  $C$  or there is a linear functional  $\varphi \in X^*$  such that  $\lim_{k \rightarrow \infty} \varphi(f^k(x)) = \infty$  for all  $x \in C$ . (Received September 18, 2007)