

1116-VH-2327      **Carter G. Murray\*** ([camurray@nmu.edu](mailto:camurray@nmu.edu)), 530 South. 32nd Street, Escanaba, MI 49829. *Mobius Transformations: The Orbits of Various Mobius Mappings*. Preliminary report.

A Mobius map is a transformation from the sphere to itself that distorts distance but preserves angles. We will begin by showing that any Mobius transformation is a composition of very basic geometric mappings. Next we will show how beautiful patterns can emerge from repeatedly applying Mobius transformations. This highly visual presentation features many pictures and computer animations and will touch on connections between complex analysis, group theory, linear algebra, dynamical systems and perhaps even art. (Received September 22, 2015)