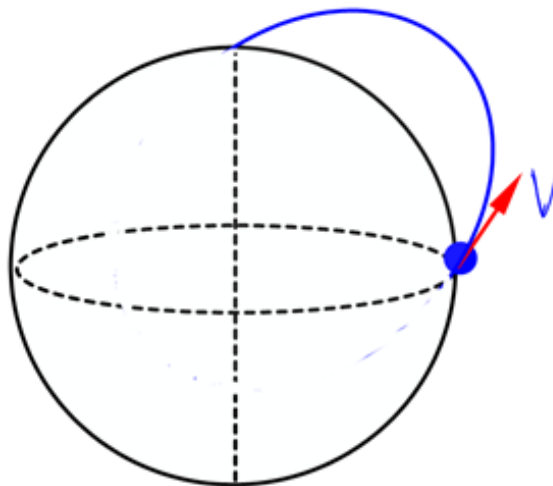


Minimum velocity of a projectile (15 points).

11.1	What is the minimum speed with which a projectile must be launched from the Earth's surface at the equator such that the projectile reaches the north pole?	12.0pt
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11.2	Find the eccentricity of the trajectory described by the projectile	3.0pt
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You may ignore the rotation of the Earth. Also assume the earth surface is spherical.



Reference Chart