

1116-VN-606      **Duff G Campbell\*** ([campbell@hendrix.edu](mailto:campbell@hendrix.edu)), Hendrix College, Mathematics Department, 1600 Washington St., Conway, AR 72032. *Minkowski's Theorem (Geometry in the Aid of Algebra)*.

An important result in number theory is that a prime integer  $p > 2$  can be written as a sum of squares,  $p = a^2 + b^2$ , if and only if  $p \equiv 1 \pmod{4}$ . Many proofs exist. Minkowski proved this in a novel way, using the geometry of lattices. His proof may be modified to apply to other quadratic forms such as  $p = a^2 + 2b^2$ ,  $p = a^2 - ab + b^2$ , . . . even  $p = a^2 + 43b^2$ . (Received September 08, 2015)