

1023-Z1-1170      **Charlie Smith\*** ([charlie.smith@park.edu](mailto:charlie.smith@park.edu)), Mathematics Department, Park University,  
Parkville, MO 64152. *Euler Converses Euclid.*

The well-known Euclid-Euler Theorem on Even Perfect Numbers asserts that “If  $2^n - 1$  is prime, then  $2^{(n-1)}x(2^n - 1)$  is perfect; furthermore, every even perfect number must be of this form.” This famous result is an excellent tool for enriching the undergraduate classroom with classic number theory. This educational journey features such notable landmarks as Euclid’s Elements, geometric progressions, the sigma function, and Euler’s actual proof of converse direction. An added bonus reveals a surprising connection to Warrensburg, Missouri. (Received September 25, 2006)