

Meeting: 1002, Pittsburgh, Pennsylvania, SS 3A, Special Session on The History of Mathematics

1002-01-158 **Duncan J. Melville*** (dmelville@stlawu.edu), Dept. of Mathematics, St. Lawrence University, Canton, NY 13617. *Numbers: Regular, irregular and prime. Some thoughts on the Old Babylonian sexagesimal system.*

It is well-known that Mesopotamian scribes from at least the Old Babylonian period onwards used a sexagesimal (base 60) place value number system. It is also well-known that division was accomplished by ‘multiplication by the reciprocal’. Both of these notions are slight distortions of reality, and these distortions affect the way we approach Mesopotamian mathematics. In this talk, we describe some alternate ways that a modern mathematician may conceptualize Mesopotamian arithmetic and show how these different visions alter the types of questions one might ask. In particular, we revisit the question of the status of prime numbers in the sexagesimal number system. (Received September 13, 2004)