1048-13-362   **Nathan Kaplan*** (`nkaplan@math.harvard.edu`), Department of Mathematics, Harvard University, One Oxford Street, Cambridge, MA 02138. *Counting Numerical Semigroups.*

Let S be a primitive numerical semigroup. We call the set of nonnegative integers not belonging to S the gaps of S and note that this set determines S. The size of this set is called the genus of S and the largest element of this set is the Frobenius number of S. In this talk we will discuss various approaches to counting numerical semigroups.

Let n_g denote the number of numerical semigroups of genus g. For $g \geq 1$ this sequence begins,

$$1, 2, 4, 7, 12, 23, 39, 67, 118, 204, 343, 592, 1001, 1693, 2857, \ldots$$

Let n_F be the number of numerical semigroups with Frobenius number F. For $F \geq 1$ this sequence begins,

$$1, 1, 2, 2, 5, 4, 11, 10, 21, 22, 51, 40, 106, 103, 200, \ldots$$

We will discuss some results and conjectures relevant to these sequences and to related problems. (Received February 10, 2009)