This thesis investigates the function of number marking in Persian, within the framework of principles and parameters (P&P), and its relationship to inflectional and derivational number marking. Following the assumption in Distributed Morphology that inflectional and derivational morphology are not distinct, the distribution and properties of number marking in Persian provide evidence for both inflectional and derivational number marking. Assuming the two parameters of number marking (Wiltschko, 2007, 2008), number marking as a functional head and number marking as a modifier, I propose that number marking in Persian is mainly inflectional while number functions as a functional head; moreover, I propose that number marking in Persian can be derivational while number functions as a modifier. This explains that number morphology in Persian is not split to either inflectional or derivational. Rather, following Booij’s (1993, 1995) claim that inflectional morphology can be used contextually as well as inherently, I propose that number morphology in Persian is inflectional while number is a functional head; however, it has inherent residues as a modifier. Considering the functions of inflectional plural morphology in Persian, I argue that the functional category Number Phrase (NumP) is projected in Persian, and number is generated in the head of this functional category. Besides, Persian is a classifier language in which classifiers are in complementary distribution with plural marking. Following Borer’s (2005) discussion of the complementary distribution of plural marking and classifiers in Armenian, I argue that the head of NumP in Persian is either occupied by the plural maker or by full/empty classifiers. Moreover, I show that the presence of bare singulars/plurals in certain syntactic positions in Persian is related to the projection/non-projection of NumP.