Great many K-12 students and teachers are starving for real mathematics. For some students, competitions serve as motivation for learning advanced topics not usually found in school curriculum. Other students do not respond well to a competitive environment. Math circles serve both types of students, and teachers, as well. I will describe two math circles: the San Jose Math Circle that is serving primarily middle school students and has been running since 1998, and the Teacher’s Circle that started in August of 2006. (Received September 20, 2006)