1. A machine at the Cheetos chips company has been acting strange lately and so an employee was asked to determine if the machine is consistent enough to remain in use, or if it needs to be replaced. To determine this, the employee used the machine to fill 10 bags with Flaming Hot Cheetos, then weighed the 10 bags. The weights (in ounces) were: 3.45, 3.31, 3.38, 3.53, 3.59. 3.64, 3.72, 3.84, 3.32, 3.51. Find a 95% confidence interval for the standard deviation of the weights of all bags of Flaming Hot Cheetos filled by this machine. Assuming that the machine should be replaced if the population standard deviation is more than 0.10 ounces, should the machine be replaced?