Massachusetts Institute of Technology
6.042J/18.062J: Mathematics for Computer Science
Professors Nancy Lynch and Srinivas Devadas

Handout **??**
December 8, 2000

Mini-Quiz 11

1. Write your name:

2. Suppose that in Florida, each of 6 million voters tosses a fair coin, independently, to decide whether to vote for Bush or Gore.

   a) What is the expected number of votes for Bush?

   b) What is the variance?

   c) What is the standard deviation?

   Solutions:
   Expected number of votes for Bush = 3 million

   Variance = npq = $\frac{6{,}000{,}000}{4}$ = 1.5 million

   Standard deviation = $\sqrt{variance} \approx 1225$