

Homework 16: Due Wednesday, May 27

Problem 1: Approximate the probability that among 10,000 random digits the digit 3 appears not more than 931 times.

Problem 2: The owner of the local store is known for being careless when calculating your total. Suppose that:

- 6% of the time he overcharges you \$2.
- 10% of the time he overcharges you \$1.
- 74% of the time he charges you correctly.
- 8% of the time he undercharges you \$1.
- 2% of the time he undercharges you \$2.

Using the Central Limit Theorem, estimate that probability that in 100 trips to the store you have been overcharged a total of at least \$1 but at most \$10.

Problem 3: Chapter 7, #15