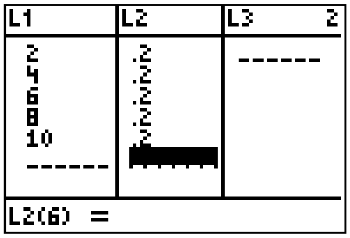
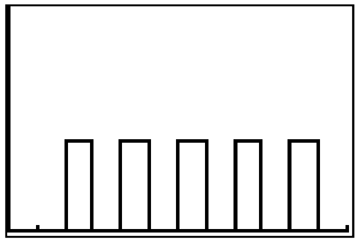
Using the TI-83/TI-84 with Probability Distributions for Discrete Random Variables

Read the sections in your text on “Using the TI-83/TI-84 Graphing Calculator,” and step through the examples.
PP. 178-179: Calculating the Mean and Standard Deviation
PP. 193-194: Binomial Probabilities

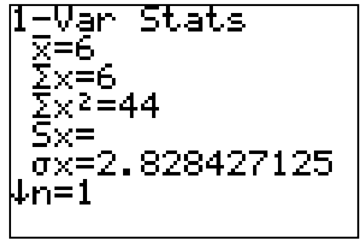
Example 1. Discrete Uniform Distribution

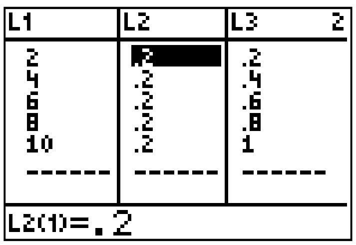
x	P(x)
2	0.2
4	0.2
6	0.2
8	0.2
10	0.2

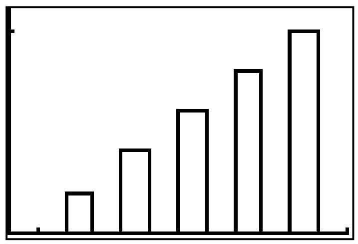




Graph of P(x)







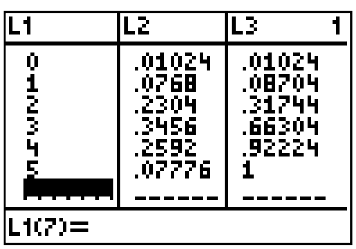
Cumulative Probabilities

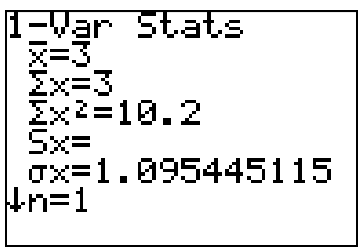
P(x ≤ 6) = ________

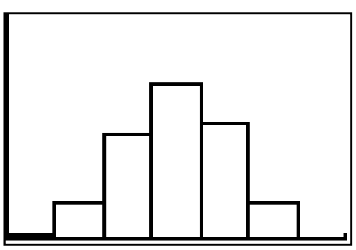
P($\bar{x} - \sigma \le x \le \bar{x} + \sigma$) = _________

P($\bar{x} - 2\sigma \le x \le \bar{x} + 2\sigma$) = ________

Example 2. A Binomial Random Variable with Number of Trials n = 5 and Probability of a Success on a Single Trial p = 0.6.







Binomial Probabilities P(x)

$P(x \le 2) =$ ______

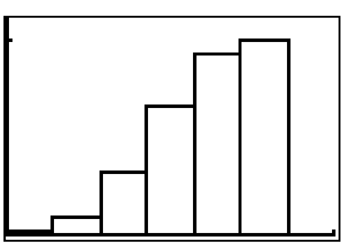
$P(x < 2 \text{ or } x > 4) =$ ________

$P(2 \le x \le 4) =$ ________

$P(x \le 5) =$ ________

$P(x \ge 4) =$ ________

$P(x > 5) =$ ________



Cumulative Binomial Probabilities