





4. A carnival game has the following probability distribution for payout per play.

Payment	\$100	\$50	\$20	\$10	\$5	1
Probability	0.01	0.02	?	0.14	0.20	0.55

- a) What is the probability a randomly selected person wins exactly \$20 on a play? [5 pts]
- b) What is the probability a randomly selected person wins at most \$10 on a play? [5 pts]
- c) What are the expected winnings per play if the game costs \$5 to play? [10 pts]

6. The University of Hard Knocks reports that 72% of students attending there receive some sort of financial aid. Answer the following for 15 students selected at random. (Show calculator inputs to receive partial credit) [5 pts each]
- Find the mean and the standard deviation?
  - What is the probability that exactly 9 of the students are receiving financial aid?
  - What is the probability that no more than 5 of the students are receiving financial aid?
  - What is the probability that at least 8 of the students are receiving financial aid?
  - What is the probability that less than 12 of the students are receiving financial aid?