A Tough Exam

You arrive at the toughest exam in your life and have no idea about any of the five questions on the exam. Luckily, the exam is multiple choice where each question has five answers and only one of the five answers is the correct answer.

Puzzle #1 - Analysis: Using only **statistics** *(no programming!)*, what is the probably of the following events:

(a): The probability of you getting all five questions correct:

(b): The probability of you getting all five questions incorrect:

(c): The probability of you getting at least one question correct:

Puzzle #2: Using Python, **write a function** that simulates a single person taking a five-question exam, returning the number of questions they answered correctly:

Simulation:	

Puzzle #3: Using Python, and using the function you wrote in Puzzle #2, simulate taking the exam 100,000 times:

Simulation:	

Puzzle #4: Generate a histogram of the result:

Histogram:	

Analysis: Using the histogram, compare the answers from Puzzle #1 to your simulation:
 (a): The probability of you getting all five questions correct:

 (b): The probability of you getting all five questions incorrect:

 (c): The probability of you getting at least one question correct: