Practice for Test 2, Math 125

(The test will be on Monday, April 14)

Math 125 *Kovitz* Spring 2025

On the test, show your work. The test will consist of 6 similar questions, each worth 18 points.

1. A fair die is rolled 10 times. What is the chance that you never get the side with four spots. Find a numeric answer rounded to the nearest one percent (nearest 1%).

   (A) 3%   (B) 8%   (C) 16%   (D) 42%   (E) 84%

2. Two cards are drawn at random without replacement from a standard deck of cards. (A standard deck has 13 hearts among the 52 cards.)

   What is the exact chance that both of the cards drawn are hearts?

   (A) 1/17   (B) 1/16   (C) 1/4   (D) 1/2   (E) 19/34

3. A fair die is rolled six times.

   The chance of getting the $\boxed{\bullet}$ at least once in the six rolls is:

   (A) 17%   (B) 33.5%   (C) 40%   (D) 66.5%   (E) 83%

4. A die is rolled 12 times. What is the chance of getting exactly five sixes?

   (A) 0.379%   (B) 2.84%   (C) 17.36%   (D) 27.91%   (E) 40.19%

5. One hundred draws are going to be made at random with replacement from the box

   $\boxed{\boxed{4}\ \boxed{6}\ \boxed{6}\ \boxed{12}}$.

   Find the approximate chance of getting a sum of draws greater than 745.

   (A) 0%   (B) 2%   (C) 7%   (D) 26%   (E) 31%

6. A large number of people get together. Each one draws 160 times at random with replacement from a box that has 1 red marble and 4 green marbles. About what percentage of these people should get exactly 32 red marbles?

   (A) 4%   (B) 8%   (C) 16%   (D) 20%   (E) 25%