Practice for Quiz 5

(The quiz will be on Tuesday, October 31.)

Math 125 *Kovitz* Fall 2023

1. A box contains six tickets, numbered 1 to 6. Four tickets are drawn at random from the box, without replacement.

   True or False:

   The chance that at least one of the four tickets drawsn has the number 2 on it is

   $$\frac{1}{6}+\frac{1}{6}+\frac{1}{6}+\frac{1}{6}=\frac{2}{3}.$$

2. A box contains six tickets, numbered 1 to 6. Four tickets are drawn at random from the box, with replacement.

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3. A fair die is rolled five times.

   True or False:

   The chance that at least one of the five rolls results in the side with two spots on top is

   $$\frac{1}{6}+\frac{1}{6}+\frac{1}{6}+\frac{1}{6}+\frac{1}{6}=\frac{5}{6}.$$

For problems 4 to 6:

A fair die is rolled four times.

4. Find the chance that at least one of the four numbers rolled was the side with three spots.

   (A) 1.54% (B) 9.645% (C) 38.6% (D) 48% (E) 52%

5. Find the chance that at exactly one of the four numbers rolled was the side with three spots.

   (A) 1.54% (B) 9.645% (C) 38.6% (D) 48% (E) 52%

6. Find the chance that at exactly two of the four numbers rolled were the side with three spots.

   (A) 1.93% (B) 9.645% (C) 11.574% (D) 33.33% (E) 38.6%