

Table Number: _____

Group Name: _____

Group Members: _____

Binomial or Not?

In each of the following cases, state whether or not the process describes a binomial random variable. If it is a binomial, give the value of n and p .

1. Count the number of times a soccer player scores in five penalty kicks against the same goalkeeper. Each shot has a $\frac{1}{3}$ probability of scoring. Circle one of the following, then explain your reasoning.

YES, BINOMIAL $n =$ _____ $p =$ _____ NO, NOT BINOMIAL

EXPLAIN:

2. Count the number of times a coin lands heads before it lands tails. Circle one of the following, then explain your reasoning.

YES, BINOMIAL $n =$ _____ $p =$ _____ NO, NOT BINOMIAL

EXPLAIN:

3. Draw 10 cards from the top of a deck and record the number of cards that are aces.

YES, BINOMIAL $n =$ _____ $p =$ _____ NO, NOT BINOMIAL

EXPLAIN:

4. Conduct a simple random sample of 500 registered voters and record whether each voter is Republican, Democrat, or Independent.

YES, BINOMIAL $n =$ _____ $p =$ _____ NO, NOT BINOMIAL

EXPLAIN:

5. Conduct a simple random sample of 500 registered voters and count the number that are Democrats.

YES, BINOMIAL $n =$ _____ $p =$ _____ NO, NOT BINOMIAL

EXPLAIN

6. Randomly select one registered voter from each of the 50 US states and count the number that are Democrats.

YES, BINOMIAL $n =$ _____ $p =$ _____ NO, NOT BINOMIAL

EXPLAIN:

Reference

Garfield, J., Zieffler, A., & Lane-Getaz, S. (2005). EPSY 3264 Course Packet, University of Minnesota, Minneapolis, MN.