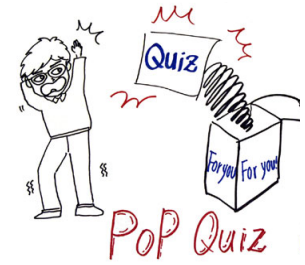


Name: _____ Hour: _____ Date: _____

- A B C D
1 ○ ○ ○ ○
2 ○ ○ ○ ○
3 ○ ○ ○ ○
4 ○ ○ ○ ○
5 ○ ○ ○ ○

Pop Quiz!



It's time for a pop quiz! We hope you are ready. The quiz consists of 5 multiple-choice questions. Each question has four answer choices, labeled A through D. Now for the bad news: you will not get to see the questions. You just have to guess the answer for each one.

1. Bubble in an answer for each question for the pop quiz. Number correct = _____
2. Let X = number of correct guesses. Is this a binomial setting? Explain.
3. Calculate the probability of getting exactly 2 correct. Show your work.
4. Fill in the table below showing the probability of getting exactly X correct.

# correct (X)	0	1	2	3	4	5
Probability						

5. Find and interpret the mean of the distribution. Show your work.
6. Find and interpret the standard deviation of the distribution.
7. What is the probability of getting at most 3 correct?
8. What is the probability of getting 3 or more correct?

Name: _____ Hour: _____ Date: _____

Describing Binomial Distributions

Important ideas:

Check Your Understanding

Are you more likely to win a random drawing if you crinkle the paper that contains your name before putting it into the drawing box? A curious student conducted a study to investigate. The student took 100 equal sized slips of paper and crinkled 25 of them before putting them all into a box. After mixing well, they asked an uninformed person to select a winner at random. The student noted if the slip was crinkled. The slip was returned to the box, mixed well, and asked another uninformed person to select a winner at random. This process was repeated 10 times. Let Y = the number of times that a crinkled paper was selected.

- Does this setting represent a binomial distribution? Explain.
- Use technology to make a histogram of the probability distribution of Y . Describe its shape.
- Calculate and interpret the mean of Y .
- Calculate and interpret the standard deviation of Y .