

Name: \_\_\_\_\_

1. Press 2<sup>nd</sup> then, VARS keys to access the DISTR (distributions) menu.
2. Select binompdf and click ENTER.
3. Enter the values for trials, n, probability, p, and number of successes x to complete the command  
Press ENTER.

calculate  $P(x)$ , probability of getting exactly x success.

calculate  $P(\text{at most } x)$ , probability of getting at most x success.

If you want to calculate  $P(\text{at least } x)$ , use the complement. That is,

: Assume that when adults with smartphones are randomly selected, 54% use them in meetings or classes

- a. If 10 adult smartphone users are randomly selected, find the probability that \_\_\_\_\_ of them use their smartphones in meetings or classes.  
 $n = 10, p = 0.54, x = 6$   
 $P(6) = \text{binompdf}(10, 0.54, 6) = 0.233$
- b. If 10 adult smartphone users are randomly selected, find the probability that \_\_\_\_\_ of them use their smartphones in meetings or classes.  
 $n = 10, p = 0.54, x = 4$   
 $P(\text{at most } 4) = \text{binomcdf}(10, 0.54, 4) = 0.283$
- c. If 10 adult smartphone users are randomly selected, find the probability that \_\_\_\_\_ of them use their smartphones in meetings or classes.  
 $n = 10, p = 0.54, x = 3$   
 $P(\text{at least } 3) = 1 - P(\text{at most } 2) = 1 - \text{binomcdf}(10, 0.54, 2) = 0.968$

1. There are 25 multiple choice questions, each with five possible answers (a, b, c, d, e), one of which is correct. Assume that you guess the answers to all 25 questions.
  - a. Find the probability that you get exactly 8 correct answers.
  
  
  
  
  
  
  
  
  
  
  - b. Find the probability that you get at most 5 correct answers.
  
  
  
  
  
  
  
  
  
  
  - c. Find the probability that you get at least 10 correct answers.

2.