

Probability II – Classwork

8/16/2018

1. What is a distribution?
2. What is the difference between discrete and continuous variables?
3. What is the difference between the pmf, pdf, and CDF?
4. What is a random variable?
5. Political science graduate students are asked to read many articles per week. For a given number of articles, the table shows the number of students who have read the corresponding number of articles. Use the table to answer the following questions:
 - a. Draw a graph for the pmf.
 - b. What is $P(X = 3)$?
 - c. What is $P(X \geq 8)$?
 - d. Calculate the average number of articles (expected value) that graduate students read.
 - e. Calculate the variance.
 - f. Calculate the standard deviation.

Articles	Number of Graduate Students
1	0
2	2
3	2
4	4
5	3
6	3
7	5
8	7
9	8
10	8