

WORKSHEET 5

1. Which of the following can be considered a probability distribution?

A)

X	1	3	5	7	9
P(X)	1.25	0.25	0.25	0.25	0.25

B)

X	1	3	5	7	9
P(X)	0.05	0.13	0.45	0.12	0.25

C)

X	1	3	5	7	9
P(X)	0.25	0.25	-0.75	0.25	0.25

D)

X	1	3	5	7	9
P(X)	0.3	0.2	0.1	0	0.3

****The number of calls received per day at a crisis hot line is distributed as follows:**

X	2	3	4	5
P(X)	0.4	0.3	0.2	0.1

Use the above table to answer questions (2 and 3).

2. Find the probability that less than 4 calls per day were received.

- A) 0.7
- B) 0.2
- C) 0.9
- D) 0.3

3. Find the mean and variance of the number of calls.
- A) Mean=3, variance =1
 - B) Mean=3, variance =1.5
 - C) Mean=3.5, variance =1.5
 - D) Mean=3.5, variance =1
4. Which of the following is a binomial experiment?
- A) Asking 300 people what type of sport they play.
 - B) Asking 70 people if they exercise.
 - C) Asking 100 people about their favorite drink.
 - D) Tossing a coin to see how tails appear.
5. A die is rolled 60 times. Find the variance of the number of 5s that will be rolled.
- A) 10
 - B) 2.9
 - C) 15
 - D) 8.3
6. A student takes a 4-question, multiple-choice quiz with 3 choices for each question. If the student guesses on each question, what is probability that student guesses exactly 1 question correct?
- A) 0.333
 - B) 0.395
 - C) 0.099
 - D) 0.422
7. In the past year, 80% of businesses have eliminated jobs. If 6 businesses are selected randomly, find the probability that at least 5 have eliminated jobs during the last year.
- A) 0.393
 - B) 0.002
 - C) 0.655
 - D) 0.345
8. At a store, 4% of the printers are not wireless. Find the mean of the number of wireless printers in a lot of 200 printers.
- A) 192
 - B) 50
 - C) 800
 - D) 8

9. At a university, 54.3% of incoming first-year students have computers. If 3 students are selected at random, find the probability that at least one has a computer.
- A) 0.095
 - B) 0.340
 - C) 0.905
 - D) 0.840

Answer Key:

1. B
2. A
3. A
4. B
5. D
6. B
7. C
8. A
9. C