Classwork 1 Section 4.1 and 4.2 Summer 2024 Name_____

Instructions: **Answer all questions, upload it on Canvas together with lecture notes [Feb 12 to Feb 16 class] by Feb 19th class time!**

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Provide an appropriate response.

1) The random variable x represents the number of tests that a patient entering a hospital will have along with the corresponding probabilities. Find the mean and standard deviation. 1) _____

x	0	1	2	3	4
P(x)	$\frac{3}{17}$	$\frac{5}{17}$	$\frac{6}{17}$	$\frac{2}{17}$	$\frac{1}{17}$

A) mean: 1.59; standard deviation: 1.09 B) mean: 2.52; standard deviation: 1.93
C) mean: 1.59; standard deviation: 3.71 D) mean: 3.72; standard deviation: 2.52

2) In a recent survey, 80% of the community favored building a police substation in their neighborhood. If 15 citizens are chosen, what is the mean number favoring the substation? 2) _____

A) 15 B) 8 C) 10 D) 12

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

3) In a recent survey, 69% of the community favored building a police substation in their neighborhood. If 14 citizens are chosen,. 3) _____

(a) Find the probability that exactly 9 of them favor the building of the police substation.

(b) Find the probability that at least 9 of them favor the building of the police substation.

(c) Find the probability that more than 9 of them favor the building of the police substation

(d) Find the probability that at most 9 of them favor the building of the police substation

(e) Find the probability that less than 9 of them favor the building of the police substation

4) According to government data, the probability that a woman between the ages of 25 and 29 was never married is 40%. In a random survey of 10 women in this age group. 4) _____

(a) what is the probability that at least eight were married?

(b) what is the probability that at most eight were married?

(c) what is the probability that more than eight were married?

1) A
2) D
3) 0.203
4) 0.167