

Quiz 2

Please answer all questions

Answer Grid:

1	2	3	4	5	6	7
8	9	10				

Multiple Choice Questions (use the answer grid).

Number of heads	0	1	2	3
Probability of outcome	1/8	3/8	3/8	1/8

Table 1: Coin Toss

Number of days absent	0	1	2	3	4	5
Probability of outcome	.6	.2	.12	.04	.04	0

Table 2: Monthly Absenses

The probabilities and the number of automobiles lined up at a Laird Wheaton's at opening time (8:00 a.m.) for service are:

Number of cars	1	2	3	4
Probability	.05	.3	.4	.25

Table 3: Laird Wheaton

- What is Table 1 depicting?
 - Probability distribution
 - Ogive
 - Standard deviation
 - Frequency table
- Given the probability distribution in Table 2, which of the following predictions is correct?
 - 60% of the employees will have more than one day absent for a month.
 - There is a 0.04 probability that an employee will be absent 1 day during a month.
 - There is a 0.12 probability that an employee will be absent 2 days during a month.
 - There is a 0.50 probability that an employee will be absent 0.72 days during a month.
- The weight of an offensive linesman may be 205.15 pounds, 210.23 pounds, 225.05 pounds or 219.14 pounds. What is this an illustration of?
 - Continuous random variable
 - Discrete random variable
 - Complement rule
 - Probability distribution
- If the variance of a probability was computed to be 4 grams, what is the standard deviation?

(a) 16 (b) .6 (c) 2 (d) 6
- What kind of distribution is the binomial distribution?
 - Discrete
 - Continuous
 - Both discrete and continuous
 - Neither discrete nor continuous

Quiz 2**QUME 232**

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6. What are the variables in the Binomial probability formula,
 $P(k \text{ successes}) = {}_n C_k p^k (1 - p)^{n-k}$?
- (a) n , for the number of trials; k , for the number of successes; p , probability of a success on each trial
 - (b) n , for the number of successes; k , for the number of trial; p , probability of a success on each trial
 - (c) n , for the mean number of trials; k , for the mean number of successes; p , probability of observing only one success
 - (d) C , for the number of curves; k , for the number of trials; p , probability of a success on each trial
7. Which is true for a binomial distribution?
- (a) There are three or more possible outcomes.
 - (b) Probability of success remains the same from trial to trial.
 - (c) Value of p is equal to 1.50.
 - (d) Value of p is equal to 0.5.
8. Base on Table 3, how many automobiles should Laird Wheaton **expect** to be lined up at opening?
- (a) 10 (b) 1 (c) 2.85 (d) 1.96
9. Which of the following is **NOT** a characteristic of a binomial probability distribution?
- (a) Each outcome is mutually exclusive.
 - (b) Each trial is independent.
 - (c) Probability of success remains constant from trial to trial.
 - (d) Each outcome results from two trials.
10. What is a listing of all possible outcomes of an experiment and their corresponding probability of occurrence called?
- (a) Random variable
 - (b) Probability distribution
 - (c) Subjective probability
 - (d) Frequency distribution