



**GRADES 1 to 12
DAILY LESSON LOG**

School:		Grade Level:	
Teacher:	depedtrends.com	Learning Area:	
Teaching Dates and Time:		Quarter:	

I. OBJECTIVES	
A. Content Standards	The learner demonstrates understanding of key concepts of random variables and probability distributions.
B. Performance Standards	The learner is able to apply an appropriate random variable for a given real-life problem (such as in decision making and games of chance).
C. Learning Competencies Write the LC code for each	illustrates a probability distribution for a discrete random variable and its properties.
D. Learning Objectives	<ul style="list-style-type: none"> Understand the concept of a probability distribution for a discrete random variable Learn how to create and interpret a probability distribution Identify the properties of a probability distribution
II. CONTENT	Probability Distribution for a Discrete Random Variable
III. LEARNING RESOURCES	
A. References	
1. Teacher's Guide pages	
2. Learner's Materials pages	
3. Textbook pages	
4. Additional Materials from Learning Resource (LR) portal	
B. Other Learning Resources	<ul style="list-style-type: none"> Sample problems and scenarios involving discrete random variables Handouts with practice problems Calculator
IV. PROCEDURES	
A. Reviewing previous lesson or presenting the new lesson (2 mins.) elicit	<p>Start the lesson by presenting a scenario to the class where a random variable is involved. For example, you could present a scenario such as "There are 20 people at a party, and they are all asked to pick a number between 1 and 10. What is the probability that at least one person picks the number 7?".</p> <p>Ask students to share their thoughts on the scenario, and to brainstorm what kind of information they would need to answer the question.</p>
B. Establishing a purpose for the lesson (1 min.) Engage	Read the objectives for today's lesson
C. Presenting examples/ instances of the new lesson Explore (2-5 mins.)	Introduce the concept of probability distributions for discrete random variables, explaining that it is a way of showing all the possible outcomes of a random variable, along with their associated probabilities.

	Demonstrate how to create a probability distribution table, using the example scenario presented earlier. Show students how to list out all the possible outcomes, and then calculate the probability of each outcome.
D. Discussing new concepts and practicing new skills #1 Explain (15 mins.)	Have students work in pairs to create probability distributions for different scenarios, such as rolling a dice, flipping a coin multiple times, or drawing cards from a deck.
E. Discussing new concepts and practicing new skills#2 (10 mins.)	<p>Review the concept of probability distributions, and ask students to share their own probability distributions that they created.</p> <p>Discuss the properties of probability distributions, such as the fact that the sum of all probabilities must equal 1, and that each probability must be between 0 and 1.</p> <p>Have students share their work and discuss their thought processes in solving the problems.</p> <p>Walk around the room to provide assistance as needed, and check in with students to see how they are progressing.</p>
F. Developing mastery (Leads to Formative Assessment 3) (12 mins.) Elaborate	<p>Provide students with handouts containing practice problems, and have them work independently to create probability distributions and solve the problems.</p> <p>Provide feedback on student performance and offer suggestions for improvement.</p> <p>NOTE: For students who have demonstrated a strong understanding of probability distributions, provide additional challenges such as more complex scenarios or scenarios with continuous random variables.</p>
G. Finding practical applications of concepts and skills in daily living (3 mins.)	<i>Encourage students to explore real-world applications of probability distributions, such as in statistics, economics, and science.</i>
H. Making generalizations and abstractions about the lesson (3 mins)	Provide feedback on student performance and offer suggestions for improvement.
I. Evaluating learning (8 mins)	<p>What is a probability distribution for a discrete random variable?</p> <p>A) A table or graph that shows the possible outcomes of a random variable, along with their associated probabilities B) A chart that displays the mean and standard deviation of a data set C) A list of numbers arranged in ascending order</p> <p>What are some examples of discrete random variables?</p> <p>A) The number of heads in three coin tosses B) The average temperature in a city C) The distance traveled by a car in a certain amount of time</p> <p>How do you calculate the probability of each outcome in a probability distribution?</p> <p>A) Using the binomial distribution formula B) Adding up all the possible outcomes C) Dividing the mean by the standard deviation</p> <p>What is the sum of all probabilities in a probability distribution?</p> <p>A) 1</p>

B) 0

C) It varies depending on the scenario

Encircle the following that corresponds to the answer.

1. What is the range of probabilities in a probability distribution?

A) Between 0 and 1

B) Between 1 and 10

C) Between 0 and 100

2. How can you interpret the probabilities in a probability distribution?

A) The higher the probability, the more likely the outcome

B) The lower the probability, the more likely the outcome

C) The probabilities have no relationship to the likelihood of the outcome

3. What are some real-world applications of probability distributions?

A) Statistics, economics, and science

B) Music, art, and literature

C) History, geography, and politics

4. What is a continuous random variable?

A) A random variable that can take on any value within a range of possible outcomes

B) A random variable that can only take on integer values

C) A random variable that can only take on a finite number of values

5. Can you have negative probabilities in a probability distribution?

A) No, probabilities cannot be negative

B) Yes, if the sum of all probabilities is less than 1

C) Yes, if the sum of all probabilities is greater than 1

6. What is the purpose of a probability distribution?

A) To show all the possible outcomes of a random variable, along with their associated probabilities

B) To predict the exact outcome of a random event

C) To calculate the mean and standard deviation of a data set.

7. What are some real-world applications of probability distributions?

A) Statistics, economics, and science

B) Music, art, and literature

C) History, geography, and politics

8. What is a continuous random variable?

A) A random variable that can take on any value within a range of possible outcomes

B) A random variable that can only take on integer values

C) A random variable that can only take on a finite number of values

9. Can you have negative probabilities in a probability distribution?

A) No, probabilities cannot be negative

B) Yes, if the sum of all probabilities is less than 1

C) Yes, if the sum of all probabilities is greater than 1

10. What is the purpose of a probability distribution?

A) To show all the possible outcomes of a random variable, along with their associated probabilities

B) To predict the exact outcome of a random event

	C) To calculate the mean and standard deviation of a data set.
J. Additional activities for application or remediation (1 min)	
V. REMARKS	
VI. REFLECTION	
A. No. of learners who earned 80% on the formative assessment	
B. No. of learners who require additional activities for remediation.	
C. Did the remedial lessons work? No. of learners who have caught up with the lesson.	
D. No. of learners who continue to require remediation	
E. Which of my teaching strategies worked well? Why did these work?	
F. What difficulties did I encounter which my principal or supervisor can help me solve?	
G. What innovation or localized materials did I use/discover which I wish to share with other teachers?	

Prepared by:

Checked by

Teacher

School Head

Observed by:
