

PD 8 Math 7 Week March 17-21 Lesson Overview

Last Week Review --- *Try again as students needed more time on studyisland.com assignments so that is what was done.*

Monday - Lumos Learning Book LLB **Lesson 5.5 & 5.6** : starting section on pg 129-135 on probability with notes on area/table model.

Tuesday - Notes on Compound Probability with the multiplication/counting principle and use of tree diagrams. Use Lumos Learning Book examples pg. 137 as well as next 2 slides on modeling from studyisland.com example.

Wednesday - Sub day - complete studyisland.com session to record time/answers using the compound probability section.

Thursday - Lumos Learning Book LLB **Lesson 5.7** : starting section on pg 137-139 and finish any previous ones..

Friday - Lumos Learning Book LLB **Lesson 5.8 & 9**: starting section on pg 140-146

SI Example

Key Ideas:

Large sample size

Representative of Population

Models Probability

Answer: A

Incorrect Reasons for B,C,D

Question 12 .

Walter owns a company that manufactures pens. There is a 6% chance of a pen being faulty in a batch. He wants to know the probability of it taking at least 25 batches for a pen to be faulty.

Which simulation can best be used to compute the probability?

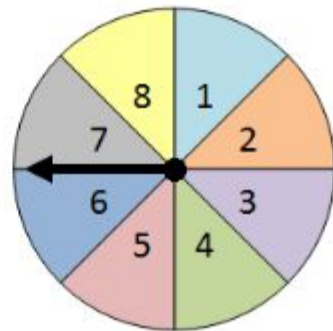
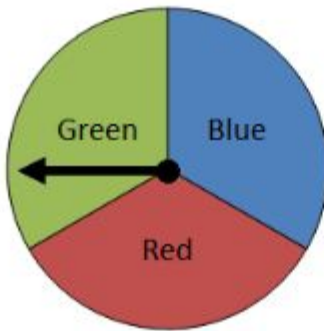
- A.** Model D: Draw a card from a box containing index cards labeled from 1 to 16. For one trial, draw the cards, with replacement, until the number 1 card is drawn. Count the trial if the number 1 card is drawn on the 25th draw or later. Repeat the process for 200 trials.
- B.** Model A: Flip a coin. For one trial, flip the coin 25 times. Count the trial if, only on the 25th flip, it lands on tails. Repeat this process for 100 trials.
- C.** Model C: Draw a marble from a bag containing eleven different-colored marbles. For one trial, draw the marbles, with replacement, until the purple marble is drawn. Count the trial if the purple marble is drawn on the 25th draw or later. Repeat the process for 100 trials.
- D.** Model B: Use a spinner with 16 different colors of equal area. For one trial, spin the spinner until it lands on light green. Count the trial if the spinner lands on light green on the 25th or later spin. Repeat this process for 20 trials.

SI Example

Key Idea:

Use Table- Sample space

ALL OUTCOMES shown



Determine which table can be used to find the probability of the event of spinning blue and then spinning an even composite number. Select all the individual cells in the appropriate table that correspond to this event, and use them to mark the probability on the number line.

Table 1

R, 1	B, 1	G, 1
R, 2	B, 2	G, 2
R, 3	B, 3	G, 3
R, 4	B, 4	G, 4
R, 5	B, 5	G, 5
R, 6	B, 6	G, 6
R, 7	B, 7	G, 7
R, 8	B, 8	G, 8

Table 2

R, 2	B, 2	G, 2
R, 4	B, 4	G, 4
R, 6	B, 6	G, 6
R, 8	B, 8	G, 8

Unit Objectives - Math 7 PSSA

ASSESSMENT ANCHOR

M07.D-S.3 Investigate chance processes and develop, use, and evaluate probability models.

DESCRIPTOR

M07.D-S.3.1 Predict or determine the likelihood of outcomes.

ELIGIBLE CONTENT

M07.D-S.3.1.1 Predict or determine whether some outcomes are certain, more likely, less likely, equally likely, or impossible (i.e., a probability near 0 indicates an unlikely event, a probability around $\frac{1}{2}$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event).

ASSESSMENT ANCHOR

M07.D-S.3 Investigate chance processes and develop, use, and evaluate probability models.

DESCRIPTOR

M07.D-S.3.2 Use probability to predict outcomes.

ELIGIBLE CONTENT

M07.D-S.3.2.1 Determine the probability of a chance event given relative frequency. Predict the approximate relative frequency given the probability.

Example: When rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times but probably not exactly 200 times.

M07.D-S.3.2.2 Find the probability of a simple event, including the probability of a simple event **not** occurring.

*Example: What is the probability of **not** rolling a 1 on a number cube?*

M07.D-S.3.2.3 Find probabilities of independent compound events using organized lists, tables, tree diagrams, and simulation.