

7th grade PSSA - Overview --- This is expected to be covered the 3rd and 4th weeks of grading term

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 $1/2$ 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.

Week April 22-26

Math 7 Strategies 1 - Probability

Monday - Individual Accounts student complete studyisland.com assignments on “simple probability” and “approximating probability” at a 70% or better in a session of 10 questions. (*Substitute teacher*)

Tuesday - Continue group notes with teacher led presentation on compound probability.

Wednesday - students complete studyisland.com assignment on “compound probability” at a 70% or better in a session of 10 questions

Thursday - Complete a worksheet of the most commonly missed questions from the 4 sections on probability off studyisland.com

Friday - Work together on PSSA sampler open response questions in preparation for next week.

Sample from Group notes on Compound Probability

Johann is a kicker on his football team and makes half of his field goal attempts during practice. Based on his attempts during practice, he wants to know the probability of making at least two out of three field goal attempts during a game.

He conducts several simulations by flipping a different number of coins 150 times each. A coin landing "heads" represents a successful field goal attempt.

Simulation	Number of Coins Flipped	Result
A	1	lands on heads 68 times
B	2	both coins land on head 39 times
C	2	at least one coin lands on heads 113 times
D	3	exactly two of the coins land on heads 48 times
E	3	at least two coins land on heads 77 times

Complete the following sentences.

The best model of this situation is simulation .

Based on the best simulation, the approximate probability that Johann is successful on at least two out of the three field goal attempts is about .

Sample from 2023-2024 PDE Sampler to review

PSSA MATHEMATICS GRADE 7

15. A crate contains green, red, and yellow apples. Information about the number of apples of each color in the crate is listed below.

- green: 24
- red: 15
- yellow: ?

One apple is randomly selected from the crate. The probability of the apple being red is $\frac{1}{3}$. How many yellow apples are in the crate?

- A. 2
- B. 6
- C. 39
- D. 45

Sample from 2023-2024 PDE Sampler to review

PSSA MATHEMATICS GRADE 7

16. The table below shows the number of each color of paper clip in a container.

Paper Clips in a Container

Color of Paper Clips	Number of Paper Clips
blue	13
green	4
white	8
yellow	10

A paper clip is randomly selected from the container three times and is replaced each time.

What is the **approximate** probability of first selecting a blue paper clip and then 2 green paper clips?

- A. 0.00397
- B. 0.00485
- C. 0.04245
- D. 0.08571