

Curriculum Aligned Competency Based Test Items

Mathematics

Class 9 – Chapter 15

Probability

The table given below shows the number of students in Sun Valley School.

Class	Number of girls	Number of boys
VI	18	22
VII	17	15
VIII	20	19
IX	15	19
X	17	21

SAS21M09D1501

- 1** Every year, one student is randomly chosen from Class X as the head student. The head student is responsible for representing the school.
What is the probability of a girl being the head student?

- A. $\frac{17}{21}$
B. $\frac{17}{38}$
C. $\frac{17}{87}$
D. $\frac{17}{183}$

SAS21M09D1502

- 2** All students of Class VI took part in a drawing competition. Aditi is a girl studying in Class VI. The teacher says, "The winner of this year's drawing competition is a boy from Class VI."
What is Aditi's probability of having won the competition?

The school provides facility for after-school activities.

The table given below shows the number of students who take part in after-school activities.

Activity	Number of girls participating	Number of boys participating
Sports (any)	16	30
Classical dance	13	5
Aerobics	15	17
Musical Instruments	17	20
Arts and crafts	20	10

SAS21M09D1503

- 3 Of all the students participating in classical dance, one is randomly chosen for an annual day performance. What is the probability of a boy being chosen?

- A. $\frac{1}{2}$
 B. $\frac{1}{5}$
 C. $\frac{5}{18}$
 D. $\frac{5}{82}$

SAS21M09D1504

- 4 Of all the students participating in classical dance, one is randomly chosen for an annual day performance. What is the probability of a boy being chosen?

- A. $\frac{2}{16}$
 B. $\frac{2}{29}$
 C. $\frac{3}{10}$
 D. $\frac{3}{7}$

SAS21M09D1505

- 5 Salma is a girl and she has chosen to learn a musical instrument. The school choir wants to randomly select a girl to play for them. What is the probability of Salma joining the choir?

- A. $\frac{1}{2}$
 B. $\frac{1}{17}$
 C. $\frac{1}{37}$
 D. $\frac{1}{63}$

SAS21M09D1506

- 6 Of all the students who have not participated in any after-school activities, one student is randomly chosen to coordinate the annual day function. What is the probability of a boy being chosen?

- A. $\frac{1}{14}$
B. $\frac{7}{10}$
C. $\frac{14}{163}$
D. $\frac{14}{183}$

Shyam made a die using a cuboid-shaped eraser.
He painted one face of the die with the number 2, two faces with the number 1 and three faces with the number 4.
Shyam throws the die.

SAS21M09D1507

- 7 What is the probability of getting a 1?

- A. $\frac{1}{2}$
B. $\frac{1}{3}$
C. $\frac{1}{4}$
D. $\frac{1}{6}$

SAS21M09D1508

- 8 What is the probability of getting a face showing an even number?

- A. $\frac{1}{2}$
B. $\frac{1}{3}$
C. $\frac{1}{6}$
D. $\frac{2}{3}$

SAS21M09D1509

- 9 Find the probability of getting a face of the die showing number less than 5?
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SAS21M09D1510

- 10** Shyam made another die identical to the one he made earlier. He throws both the dice together and adds the number on the face of the two dice. Show the sample space of the experiment.

Answers

Mathematics
Class 9 – Chapter 15

Item Number	Question 1
Question Code	SAS21M09S1501
Grade & Chapter Name	Grade 9 Probability
Concept Sub-concept	Probability An Experimental Approach
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. $\frac{17}{38}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M09S1502
Grade & Chapter Name	Grade 9 Probability
Concept Sub-concept	Probability An Experimental Approach
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	0 Zero
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M09S1503
Grade & Chapter Name	Grade 9 Probability
Concept Sub-concept	Probability An Experimental Approach
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. $\frac{5}{18}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M09S1504
Grade & Chapter Name	Grade 9 Probability
Concept Sub-concept	Probability An Experimental Approach
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. $\frac{2}{61}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M09S1505
Grade & Chapter Name	Grade 9 Probability
Concept Sub-concept	Probability An Experimental Approach
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. $\frac{1}{17}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M09S1506
Grade & Chapter Name	Grade 9 Probability
Concept Sub-concept	Probability An Experimental Approach
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. $\frac{7}{10}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M09S1507
Grade & Chapter Name	Grade 9 Probability
Concept Sub-concept	Probability Probability of an Event
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. $\frac{1}{3}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M09S1508
Grade & Chapter Name	Grade 9 Probability
Concept Sub-concept	Probability Probability of an Event
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. $\frac{2}{3}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M09S1509
Grade & Chapter Name	Grade 9 Probability
Concept Sub-concept	Probability Probability of an Event
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	1
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M09S1510
Grade & Chapter Name	Grade 9 Probability
Concept Sub-concept	Probability Probability of an Event
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	{2,3,4,5,6,8} Allow responses even if shown without brackets However, only the shown numbers are permitted
No Credit (No Score)	Any other response or missing response