

Topic: Probability

Date: 13th April 2023

Date of Submission: 12th June 2023

OBJECTIVE: To appreciate that finding probability through experiment is different from finding probability by calculation. Students become sensitive towards the fact that if they increase the number of observations, probability found through experiment approaches the calculated probability.

PREREQUISITE KNOWLEDGE:

- Experimental Probability
- Theoretical Probability

MATERIALS REQUIRED:

- A-4 sheets of papers

PROCEDURE:

- Students will collect the following data by visiting grade 10 sections in the school.
- They will obtain a fraction of the number of children having their birthday in the month of Jan, Feb,.....,Dec. from the data given in the table.

- They will investigate if the fraction actually obtained in the second pointer with the calculated probability obtained for each month.

Eg. If the total number of students whose birthday falls in the month of Jan is 38 and total number of students is 500, the actual fraction of students born in Jan = $38/500$

Probability for a student to have birthday in Jan = $31/365$

DATA GIVEN BY HEMANTH

DATA COMPILED BY © WingArr Team

Section	No. of students	No. of students having birthdays in the month of											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ankush	26	3	2	2	1	2	2	1	5	2	1	2	3
Paraspears	26	4	4	0	1	4	2	2	1	2	0	1	5
Skylords	25	1	4	0	1	1	1	4	3	5	2	1	2
Stallions	28	6	3	1	1	2	4	1	2	2	3	0	3
Swifts	26	3	1	1	1	3	4	2	1	3	1	3	3
Thunderbirds	29	2	2	1	0	6	2	0	2	2	3	3	6
Trisonics	27	1	0	3	3	2	1	0	3	8	1	2	3
Winged arrows	26	3	2	2	0	2	2	2	3	0	4	2	4
Total	213	23	18	10	8	22	18	12	20	24	15	14	29

Answers for probability:

Fraction of students born in Jan: $\frac{23}{213}$

Fraction of students born in Feb: $\frac{18}{213}$

Fraction of students born in Mar: $\frac{10}{213}$

Fraction of students born in Apr: $\frac{8}{213}$

Fraction of students born in May: $\frac{22}{213}$

Fraction of students born in Jun: $\frac{18}{213}$

Fraction of students born in Jul: $\frac{12}{213}$

Fraction of students born in Aug: $\frac{20}{213}$

Fraction of students born in Sep: $\frac{24}{213}$

Fraction of students born in Oct: $\frac{15}{213}$

Fraction of students born in Nov: 14/213

Fraction of students born in Dec: 29/213

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