

VIII - Mathematics [Data Handling]

Academic Year 2011-2012

1. What is the probability that a number selected from the numbers 1, 2, 3,, 25 is a prime number , when each of the given numbers is equally likely to be selected .
2. Tickets numbered from 1 to 20 are mixed up together and then a ticket is drawn at random. What is the probability that the ticket has a number which is a multiple of 3 or 7.
3. 17 cards numbered 1,2,3 17 are put in a box and mixed thoroughly . One person draws a card from the box. Find the probability that the number on the card is
(a) odd (b) a prime (c) divisible by 3 (d) divisible by 3 and 2 both
4. A bag contains 5 red balls , 8 white balls, 4 green balls and 7 black balls. If one ball is drawn at random. Find the probability that it is
(a) Black (b) red (c) not green
5. A child has a block in the shape of a cube with one letter written on each face as shown below.

A	B	C	D	E	A
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The cube is thrown once. What is the probability of getting (i) A (ii) D

6. A letter is chosen at random from the letters of the word ASSASSINATION. Find the probability that the letter chosen is a
(i) vowel (ii) consonant

7. The number of members in 20 families of a township are 6, 8, 4, 3, 5, 6, 7, 4, 3, 4, 5, 6, 4, 5, 4, 3, 3, 6, 4 and 3. Prepare a frequency distribution table for the data and answer the following questions :

- (i) What is the smallest family size ? How many families are of this size ?
- (ii) What is the largest family size ? How many are of this size ?
- (iii) What is the most common family size ?

8. The heights of 10 girls were measured in cm and the results were as follows :

143, 148, 135, 150, 128, 139, 149, 146, 151, 132

- (i) What is the height of the tallest girl?

- (ii) What is the height of the shortest girl ?
- (iii) What is the range of the data ?
- (iv) Find the mean height.
- (v) How many girls are there whose heights are less than the mean height ?

9. The following data give the pocket expenses of 100 students of a school

Weekly pocket expenses (in rupees)	30	35	45	50	55	60	65
Number of students	6	10	14	22	35	9	4

Prepare a grouped frequency distribution of class intervals of equal width, taking one of the class intervals as 30 – 40

10. The following distribution table shows the performance of 270 candidates appearing for Army Education Corps intelligence test.

I.Q	55–69	69–83	83–97	97–111	111–125
No. of candidates	20	50	75	75	50

Draw a histogram for this distribution.

Answers:

1. $\frac{9}{25}$

2. $\frac{2}{5}$

3. $\frac{9}{17}, \frac{7}{17}, \frac{5}{17}, \frac{2}{17}$

4. $\frac{7}{24}, \frac{5}{24}, \frac{5}{6}$

5. $\frac{1}{3}, \frac{1}{6}$

6. $\frac{6}{13}, \frac{7}{13}$