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## MATHS

## NCERT - NCERT

## Mathematics(HINGLISH)

## DATA HANDLING

## Solved Examples

1. A batsman scored the following number of runs in six innings: $36,35,50,46,60,55$

Calculate the mean runs scored by him in an inning.
A. 47
B. 48
C. 49
D. 50

Answer: $A$
2. The ages in years of 10 teachers of a school are: $32,41,28,54,35,26,23,33,38,40$
(i) What is the age of the oldest teacher and that of the youngest teacher?
(ii) What is the range of the ages of the teachers?
(iii) What is the mean age of these teachers?

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3. Ashish studies for 4 hours, 5 hours and 3 hours respectively on three consecutive days.

How many hours does he study daily on an average?
A. 3
B. 4
C. 5
D. 6

Answer: $B$

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4. Find the mode of the numbers:
$2,2,2,3,3,4,5,5,5,6,6,8$

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5. Find the median of the data:
$24,36,46,17,18,25,35$
6. Find the mode of the given set of numbers:
$1,1,2,4,3,2,1,2,2,4$

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7. Following are the margins of victory in the footballmatches of a league.
$1,3,2,5,1,4,6,2,5,2,2,2,4,1,2,3,1,1,2,3,2,6$,
$4,3,2,1,1,4,2,1,5,3,3,2,3,2,4,2,1,2$

Find the mode of this data

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8. Two hundred students of 6th and 7th class
were asked to name their favourite colour so as
to decide upon what should be the colour of their School Building. The results are shown in
the following table. Represent the given data on a bar graph.

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9. Following data gives total marks (out of 600)
obtained by six children ofa particular class.
Represent the data on a bar graph.

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10. A mathematics teacher wants to see, whether the new technique of teaching she applied after quarterly test was effective or not.

She takes the scores of the 5 weakest children in the quarterly test (out of 25) and in the half yearly test (out of 25 ):

| Students | Ashish | Arun | Kavish | Maya | Rita |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Quarterly | 10 | 15 | 12 | 20 | 9 |
| Half yearly | 15 | 18 | 16 | 21 | 15 |

1. A box contains pairs of socks of two colours
(black and white). I have picked out a white
sock. I pick out one more with my eyes closed.
What is the probability that it will make a pair?
A. $\frac{2}{3}$
B. $\frac{4}{3}$
C. $\frac{5}{3}$
D. $\frac{1}{3}$

## Answer: D

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2. A coin is flipped to decide which team starts
the game. What is the probability that your team will start?
A. $\frac{7}{2}$
B. $\frac{1}{2}$
C. $\frac{3}{2}$
D. $\frac{5}{2}$

## Answer: B

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3. There are 6 marbles in a box with numbers
from 1 to 6 marked on each of them.
(i) What is the probability of drawing a marble with number 2 ?
(ii) What is the probability of drawing a marble with number 5 ?
4. Tell whether the following is certain to happen, impossible, can happen but not certain.
(i) You are older today than yesterday.
(ii) A tossed coin will land heads up.
(iii) A die when tossed shall land up with 8 on top.
(iv) The next traffic light seen will be green.
(v) Tomorrow will be a cloudy day.
5. A cricketer scores the following runs in eight innings:58, 76, 40, $35,46,45,0,100$.Find the mean score.

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2. The marks (out of 100) obtained by a group of students in a science test are 85, 76,90, 85,

39, 48, 56, 95, 81 and 75. Find the:(i) Highest and
the lowest marks obtained by the students.(ii)

Range of the marks obtained.(iii) Mean marks obtained by the group.

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3. The heights of 10 girls were measured in cm and the results are as follows:135, 150, 139, 128,

151, 132, 146, 149, 143, 141.(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) What is the mean height of the girls?(v) How many girls have heights more than the mean height

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4. The rainfall (in mm ) in a city on 7 days of a certain week was recorded as follows:(i) Find the range of the rainfall in the above data.(ii) Find the mean rainfall for the week.(iii) On how many days was the rainfall less than the mean rainfall.

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5. Following table shows the points of each player scored in four games:Now answer the following questions:(i) Find the mean to determine A's average number of points scored per game.(ii) To find the mean number of points per game for C, would you divide the totalpoints by 3 or by 4? Why?(iii) B played in
all the four games. How would you find the mean?(iv) Who is the best performer?
6. The enrolment in a school during six consecutive years was as follows:
$1555,1670,1750,2013,2540,2820$
Find the mean enrolment of the school for this period

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7. Find the mean of the first five whole numbers
8. Organise the following marks in a class assessment, in a tabular form.](i) Which number is the highest? (ii) Which number is the lowest?(iii) What is the range of the data? (iv) Find the arithmetic mean.

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Exercise 32

1. The runs scored in a cricket match by 11
players is as follows: $6,15,120,50,100,80,10,15$,
$8,10,15$ Find the mean, mode and median of this data. Are the three same?
A. $\quad$ mean $=39$, median $=15$, mode $=15$
B. mean $=40$, median $=16$, mode $=16$
C. mean $=38$, median $=11$, mode $=11$
D. mean $=33$, median $=12$, mode $=12$

Answer: A

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2. Find the mode and median of the data: 13, 16, $12,14,19,12,14,13,14$

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3. The scores in mathematics test (out of 25) of

15 students is as follows:
$19,25,23,20,9,20,15,10,5,16,25,20,24,12,20$

Find the mode and median of this data. Are they same?
4. The weights (in kg.) of 15 students of a class
are: $38,42,35,37,45,50,32,43,43,40,36,38,43$,

38,47 (i) Find the mode and median of this data.
(ii) Is there more than one mode?

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5. Tell whether the statement is true or false:
(i) The mode is always one of the numbers in a data.
(ii) The mean can be one of the numbers in a data.
(iii) The median is always one of the numbers in a data.
(iv) A data always has a mode.
(v) The data 6, 4, 3, 8, 9, 12, 13, 9 has mean 9 .

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## Exercise 33

1. Number of children in six different classes are
given below. Represent the data on a bar graph
.(a) How would you choose a scale
.(b) Answer the following questions:
(i) Which class has the maximum number of children? And the minimum?
(ii) Find the ratio of students of class sixth to the students of class eight.

| Class | Fifth | Sixth | Seventh | Eighth | Ninth | Tenth |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Children | 135 | 120 | 95 | 100 | 90 | 80 |

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2. Read the bar graph (Fig 3.4) and answer the questions that follow:Number of books sold by a bookstore during five consecutive years.
(i) About how many books were sold in 1989?

1990? 1992?
(ii) In which year were about 475 books sold?

About 225 books sold?
(iii) In which years were fewer than 250 books sold?
(iv) Can you explain how you would estimate the number of books sold in 1989?

3. Use the bar graph (Fig 3.3) to answer the following questions.
(a) Which is the most popular pet?
(b) How many children have dog as a pet?


Pet Animals

