



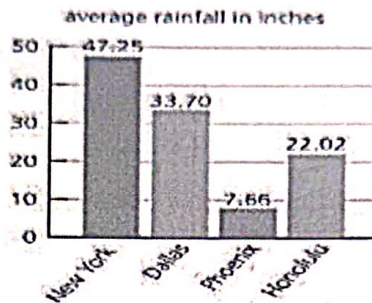
DELHI PUBLIC SCHOOL BANGALORE - EAST

MATHEMATICS

DATA HANDLING - HANDOUT

Data: The word 'data' means collection of information in the form of numerical figures, or a set of given facts. Visual representation of data will help us to understand it better and remember the facts easily.

Bar Graph: A bar chart or bar graph is a chart or graph that presents grouped data as rectangular bars with lengths proportional to the values that they represent. The bars can be plotted vertically or horizontally.



Tally Chart: Tally marks are also called as hash marks. They are most useful in counting or tallying ongoing results. A way of keeping count is by drawing marks.

Every fifth mark is drawn across the previous 4 marks, so you can easily see groups of 5.

Our Favourite Sports

Sport	Tally	Number of Students
Hockey	I	6
Soccer		5
Basketball		4
Gymnastics		2

Frequency: It gives the number of times that a particular entry occurs.

Pictograph: The picture visually helps us to understand the data. A pictograph represents data through pictures of objects. It helps to answer the questions on the data at a glance.

The following table shows the no of apples sold by a vendor during a week:

	Number of Apples
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

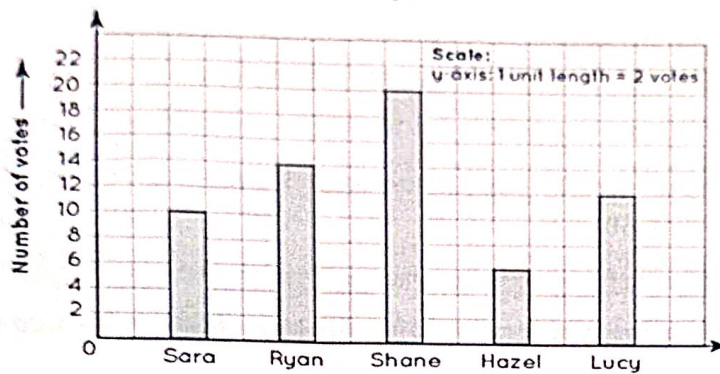
Key - 10 apples

II. Fill in the blanks:

6. Information presented through numbers is called _____ data.
 7. A _____ is a collection of numbers gathered to give some meaningful information.
 8. The number of times an observation is repeated in a data is called _____.

III. CASE STUDY:

All students of class 6 voted for selecting their class monitor. There were five candidates and all the students cast one vote each. The bar graph shows the result. Answer the following questions based on the bar graph.



- (i) Who won the maximum votes?
 a) Ryan b) Shane c) Lucy d) Sara
- (ii) How many students voted for Hazel?
 a) 12 b) 20 c) 2 d) 16
- (iii) Which candidate received 28 votes?
 a) Sara b) Lucy c) Ryan d) Shane

IV. Solve:


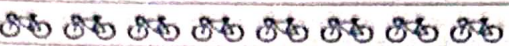
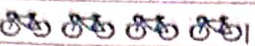
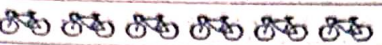
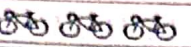
9. David threw a dice 30 times and noted the number appearing each time. The numbers that appeared are shown below:

2	1	2	2	6	1	4	4	2	6
1	6	3	6	3	3	4	1	4	2
5	2	5	4	1	2	6	4	3	2

Prepare a table using tally marks.


10. Bicycles sold at a Cycle Store are shown in the following pictograph. Answer the following questions based on the pictograph.

Key: Each  = 5 cycles

Month	Number of bicycles
September	
October	
November	
December	
January	

- Which month has maximum sale of bicycles and how many?
 - If the cost of each bicycle is 2750, how much did the store earn in October by selling bicycles?
 - During Christmas, the store has given 150 discount per cycle. Calculate the total discount.
11. Number of books sold by a Book Store in a week is given below. Draw a bar graph using the given data.




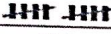

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
No. of books	80	100	60	40	140	160	120

12. Represent the following data using pictograph, using the key  = 10 students

Sports	Cricket	Football	Basketball	Badminton	Chess
No. of students like	25	45	50	55	35






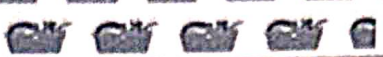
13. The weight of new born babies (in kg) in a hospital on a particular day is as follows: 2.3, 2.2, 2.1, 2.7, 2.6, 3.0, 2.5, 2.9, 2.8, 3.1, 2.5, 2.8, 2.7, 2.9, 2.4
How many babies weigh below 2.5kg?


14. Study the following tally marks frequency table and answer the questions given below:

Marks obtained by students in maths test	Tally Marks
12	
16	
18	
10	
20	

- How many students score 10 marks?
- How many students scored above 10?
- How many total students appeared on the test?

15. In a village, six fruit merchants sold the following number of fruit baskets in a particular season:

Merchant	Number of Fruit Baskets
Rahim	
Lakhan pal	
Anwar	
Martin	
Ranjit singh	
Joseph	

 = 100 fruit baskets

- (i) Which merchant sold the maximum number of baskets?
- (ii) How many fruit baskets were sold by Anwar?
- (iii) The merchants who have sold 600 or more number of baskets are planning to buy a godown for the next season. Can you name them?

HOTS

16. Explain the following terms related to Data-

- a) Raw data
- b) Observation
- c) Frequency
- d) Bar Graph

17. The following data gives the information about the number of hot and cold drinks sold in a café on a day. Tea – 200; Coffee – 150; Milk -50; Fresh Juice – 75. Represent the information using a bar graph.

ANSWERS

- 1. c
- 2. d
- 3. b
- 4. a
- 5. a
- 6. numerical data.
- 7. data
- 8. Frequency

CASE STUDY

- a) 1
- b) 18
- c) 40



DELHI PUBLIC SCHOOL BANGALORE-EAST

MATHEMATICS

PERIMETER AND AREA-HANDOUT



NAME: _____ CLASS: VI SEC: _____ DATE: _____

DATE: _____

- Perimeter is the distance covered along the boundary forming a closed figure when you go round figure once.
- Perimeter of a rectangle = $2(\text{length} + \text{breadth}) = 2(l + b)$
- Perimeter of a square = $4 \times \text{side} = 4s$
- Perimeter of a triangle with sides a, b and c = $a + b + c$
- Perimeter of an equilateral triangle = $3 \times \text{side} = 3s$
- The amount of surface of the plane covered by a closed figure is called its **area**.
- Area of a rectangle = $\text{length} \times \text{breadth}$
- Area of a square = $\text{side} \times \text{side}$
- Cost of fencing = $\text{perimeter} \times \text{cost per unit length}$
- Cost of tiling = $\text{area} \times \text{cost per unit area}$
- Number of tiles = $\frac{\text{area of floor}}{\text{area of a tile}}$
- Perimeter is measured in units like cm, m, km etc.
- Area is measured in square units like sq mm, sq cm, sq ft etc.

I. Choose the correct answer.
1) What is the perimeter of a square with side 12 cm?
a. 12 cm
2) What is the area of a rectangle with length 10 cm and breadth 5 cm?
a. 50 sq cm
3) The perimeter of a triangle is 30 cm. Two of its sides are 10 cm and 12 cm. What is the third side?
a. 8 cm
4) The area of a square is 144 sq cm. What is the side of the square?
a. 12 cm
5) The perimeter of a rectangle is 30 cm. One of its sides is 10 cm. What is the other side?
a. 10 cm



DELHI PUBLIC SCHOOL BANGALORE -EAST

MATHEMATICS

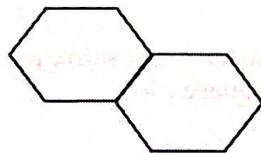
PERIMETER AND AREA

DATE: _____

TEACHER'S SIGNATURE: _____

I. Choose the correct answer: -

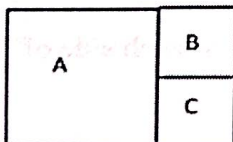
- 1) What distance John will travel if he takes 18 rounds of a square park of side 35 m?
a. 1260 m b. 2520 m c. 630 m d. 2500 m
- 2) What is the cost of tilling a rectangular plot of land 400 m long and 100 m wide at the rate of ₹8 per hundred sq m?
a. ₹ 3300 b. ₹ 3200 c. ₹ 4000 d. ₹ 8000
- 3) The side of a square is 10 cm. How many times will the new perimeter become if the side of the square is doubled?
a. 2 times b. 4 times c. 6 times d. 8 times
- 4) Find the area of a square whose side is 2.6 cm.
a. 6.67 sq cm b. 4.67 sq cm c. 8.57 sq cm d. 6.76 sq cm
- 5) Two regular Hexagons of perimeter 30 cm each are joined as shown in figure. Find the perimeter of the new figure.



- a. 65 cm b. 60 cm c. 55 cm d. 50 cm

II. Fill in the blanks:

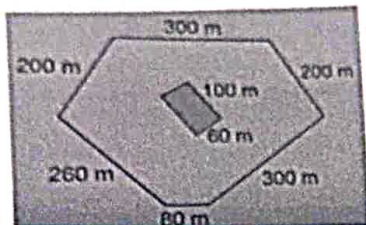
- 6) The perimeter of a rectangle is 284 cm and length is 86 cm. Its breadth will be _____.
- 7) Area of square A is 36 sq cm. Perimeter of square B is 12 cm.
The area and perimeter of C are _____ and _____.



- 8) The length and breadth of a rectangular field is 230 m and 180 m, if 5 rounds of fencing wire was required, _____ is the length of fencing wire.

Case Study:

9. Riya along with her mother goes for an evening walk every day in a nearby park. There is a rectangular flower bed in the centre of the park. The figure shows the dimensions of the park and the flower bed.

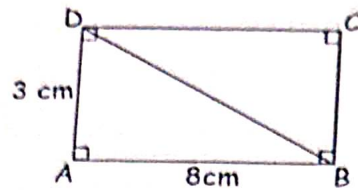


- i) What is the perimeter of the park?
a) 1340 m b) 13400 m c) 1260 m d) 1140 m
- ii) What is the total cost of fencing the park at the rate of ₹200 per metre?
a) ₹ 2680 b) ₹ 26800 c) ₹ 268000 d) ₹286000
- iii) What is the area of the flower bed?
a) 600 sq. m b) 6000 sq. m c) 1600sq. m d) 16000 sq. m
- iv) What is the perimeter of the flower bed?
a) 6000 m b) 1340 m c) 3200 m d) 320 m

III. Solve:

- 10) A rectangular cardboard of length 12 m and breadth 8 m is cut to get the largest possible square. Find the cost of painting the surface of cardboard at the rate of ₹ 25 per sq m.
- 11) Two plots, one square and other rectangular have the same perimeter. If the rectangular field is 90 m by 70 m, find the area of the square plot.
- 12) A marble tile measures 15 cm × 20 cm. How many tiles will be required to cover a wall of size 4 m × 6 m?
- 13) A door of dimensions 3 m by 2 m is fixed on a wall of dimensions 15 m by 10 m. Find the cost of painting the wall at the rate of ₹ 10 per square metre.
- 14) The perimeter of a square is 12 cm. Four such squares are placed next to each other to form a rectangle. What is the perimeter of the rectangle?
- 15) Priya wants to put a border to her triangular shaped mirror. If each side of the mirror measures 35cm, what is the length of the border required?

16) Find the area of the ΔABD in the following figure.



17) Sujit painted a wall of dimensions $45\text{ m} \times 30\text{ m}$ and the money he got from his work was ₹20 for one square meter. How much money did he make? He always gives half of his income to charity. Calculate the amount of money he gave to charity.

18) In order to fence a garden 70 m long and 50 m wide, metal posts are to be fixed every 5 m apart. Each post is 3 m long. What is the total length of the pipe required for the posts?

HOTS

19) What will happen to the area of a square if its side is tripled?

20) The total cost of flooring a room at ₹5 per square metres is ₹325. If the breadth of the room is 5 m , then what is its length?

21) The perimeter of a rectangle is 24 cm . What will be the length and breadth of that rectangle (in whole numbers) for a) maximum area? b) minimum area?

ANSWERS

1. b 2. b 3. a 4. d 5. d
6. 56 cm 7. $9\text{ sq.cm}; 12\text{ cm}$ 8. 4100 m

CASE STUDY

9. i) a ii) c iii) b iv) d



DELHI PUBLIC SCHOOL BANGALORE - EAST

MATHEMATICS

DECIMALS - HANDOUT

- Decimals are the fractions with denominators 10, 100, 1000 etc.
- Like decimals have an equal number of digits to the right of the decimal point.
- Unlike decimals have unequal number of digits to the right of the decimal point.
Like: 5.67, 12.09 Unlike: 4.9, 7.008
- Proper fractions, when written as decimals, have only a decimal part.
Eg: - $\frac{1}{4} = 0.25$
- Improper fractions have a whole number part and a decimal part, when converting to decimals.
Eg: $\frac{15}{2} = 7\frac{1}{2} = 7.5$
- The decimal with greater integral (whole number) part will be greater.
Eg: $7.6 > 5.9$, since $7 > 5$
- If the integral parts are same, then beginning from tenths place the decimal with the greater digit in the same place is greater.
Eg: $6.12 < 6.78$, since $1 < 7$
- Conversions:
 $10\text{mm} = 1\text{cm}$
 $100\text{cm} = 1\text{m}$
 $1000\text{m} = 1\text{km}$

 $1000\text{mg} = 1\text{g}$
 $1000\text{g} = 1\text{kg}$

 $1000\text{ml} = 1\text{l}$
 $1000\text{l} = 1\text{kl}$



DELHI PUBLIC SCHOOL BANGALORE - EAST
MATHEMATICS
DECIMALS

DATE: _____

TEACHER'S SIGNATURE: _____

I. Choose the correct option:

- 0.7499 lies between _____.
a) 0.7 and 0.74 b) 0.75 and 0.79 c) 0.749 and 0.75 d) 0.74992 and 0.75
- Which of the following decimals is the smallest?
a) 0.27 b) 1.5 c) 0.082 d) 0.103
- $3.5 + 4.05 - 6.005 = ?$
a) 1.545 b) 1.095 c) 1.6 d) none of these
- $2 \text{ m } 7 \text{ cm} =$ _____.
a) 2.7 m b) 2.07 m c) 2.007 m d) 0.27 m
- The number from which 10.8 is to be subtracted to obtain 6.025 is _____.
a) 4.775 b) 6.033 c) 16.825 d) 16.105

II. Fill in the blanks :

- $\frac{11}{20}$ can be written in decimal as _____.
- $16 \text{ kg } 5 \text{ g} =$ _____ kg.
- 95 rupees 5 paise as decimal is _____.

9. CASE STUDY:

Money from different countries:

Ram bank has a chart to show us how many Indian rupees we can get when we change the money of different countries (Rate on 15 Feb, 2023)

Country	Money	Changed to Indian rupees
Sri Lanka	Rupee	0.23
Singapore	Dollar	62.04
Japan	Yen	0.62
U.S. A	Dollar	82.87
Germany	Euro	88.55
England	Pound	99.66
Russia	Ruble	1.11

- The money of which country will cost the most Indian Rupees?
- Ravi's uncle in America had sent him 100 USA dollars as gift. Ravi used ₹ 1245 for a school trip. How much money was left with him?
- What is the sum of 2 Yen, 2 Euros and 1 Pound into Indian Rupees?
- How much more is 1 Ruble than 1 Yen into Indian Rupees?

III. Solve :

10. Write as fractions in lowest term.

a. 2.08

b. 0.5

11. Which one is greater? $1\text{ m }40\text{ cm} + 60\text{ cm}$ or 2.6 m .

12. What should be subtracted from 19.5 to get 0.557?

13. Amit purchased wheat flour for ₹ 191.75, sunflower oil for ₹ 98.90 and corn flakes for ₹ 105 from a shop. He gave ₹ 500 to the shopkeeper. What amount did the shopkeeper return to Amit?

14. What should be added to 98.17 to get 111?

15. Write the largest four-digit decimal number less than 1 using the digits 3, 6, 5 and 1 once.

16. Tanuj walked 8.62 km on Monday, 7.05 km on Tuesday and some distance on Wednesday. If he walked 21.01 km in three days, how much distance did he walk on Wednesday?
17. On the way to his office, Rajesh has to travel 2.5 km by bus and then 17.25 km by train. If his office is only 200 m away from the railway station, find the total distance Rajesh needs to travel to reach his office.
18. Subtract the difference of 81.24 and 35.099 from the sum of 24.945 and 62.038.

HOTS

19. In copying an addition sum, Isha copied 7.38 as 8.37 and got the answer 15.76. What is the correct answer?
20. The total weight of a bag containing 13 kg 750 g of apples and 8 kg 80 g of oranges is 22 kg 200 g. What is the weight of the empty bag?

ANSWERS:

- 1) c 2) c 3) a 4) b 5) c 6) 0.55 7) 16.005 8) ₹ 95.05

CASE STUDY

9. a) England b) ₹ 7042 c) ₹ 278 d) ₹ 0.49