

6th Standard

Do neat and clean work

Learn and write table 2 to 20, 10 times.

26, 17, 18, 16, 24, 15, 23, 14, 23, 18, 16, 17, 24, 26, 17, 16, 24, 17, 15, 14

- Q:2 Following are the marks obtained by 15 students in the annual exam out of 100 :

40,70,50,60,70,40,100,80,95,65,60,70,65,40,50

- Q:3 The data shows the shoe size of 20 students of a class:

- Prepare a frequency distribution table for the given data.
- Which shoes size is worn by minimum number of students?
- Which shoes size is worn by maximum number of students?
- How many students wear size number 5?
- How many students wear size larger than 4?


Q:4 Total number of animals in five villages are as follows :

Prepare a pictograph of these animals by taking ☺ as 20 animals.

Q:5 The total number of students of a school in different years shown in the following table:

Prepare a pictograph using to represent 1,000 students and the following:

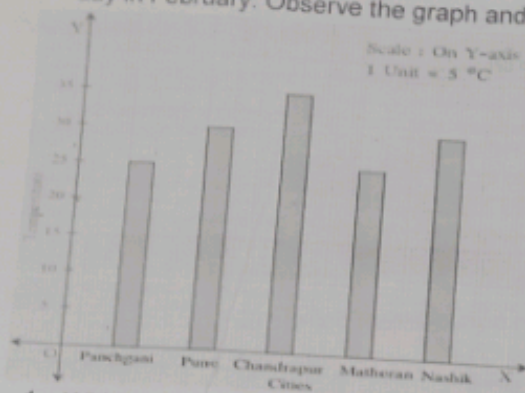
- Q:6 The pictograph shows the rainfall on some cities during a certain year.

 represents 10 cm.

a) Find the rainfall in cm in following cities:

- b) How many cm rain was there in City C ?

Q:7 This bar graph shows the maximum temperatures in degrees Celsius in different cities on a certain day in February. Observe the graph and answer the following question



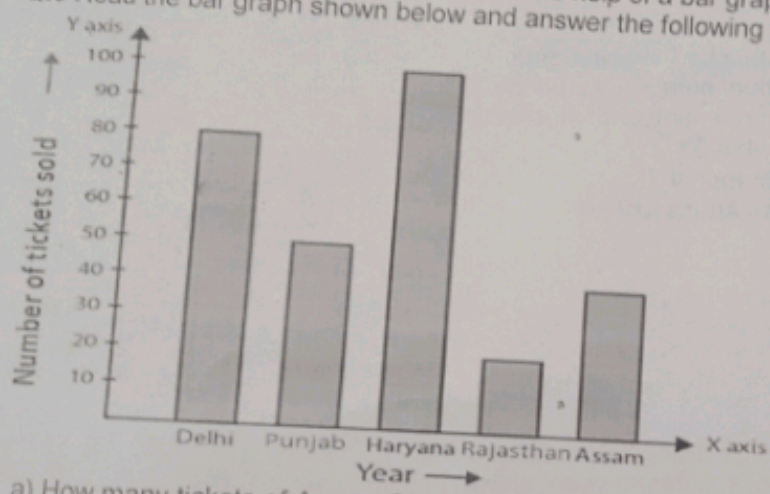
1. Which city had the highest temperature?
2. Which cities had equal maximum temperatures?
3. Which cities had a temperature of 35°C?
4. What is the difference between the maximum temperatures of Pune and Chandrapur?

Q:8 The population of Delhi State in different census years is as given below:

Census year	1961	1971	1981	1991	2001
Population in Lakhs	30	55	70	110	150

Represent the above information with the help of a bar graph.


Q:9 Read the bar graph shown below and answer the following questions:



- a) How many tickets of Assam State Lottery were sold by the agent?
- b) Of which state, were the maximum number of tickets sold?
- c) Of which state, were the minimum number of tickets sold?

Q:10 The following table shows the number of Maruti cars sold by five dealers in a particular month:

Dealer	Saya	Bagga Links	D.D. Motors	Bhasin Motor	Competent Motors
Cars sold	60	40	20	15	10

Represent the above information by a pictograph by taking one  as 5 cars.

Q:11 What fraction of:

- a) A day is 4 hours
- b) A week is 4 days
- c) A year is 3 months

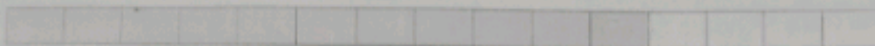
Q:12 Rohan had 30 apples with him he give 10 of them to his elder brother Ravi. What fraction of Apple is left with him?

Q:13 Ravi spend 20 hours on his study .He spend 4 hours of them on mathematics study.What fraction of his study he devoted to mathematics?

Q:14 Write all the factors of 48. What fraction of these factor are even numbers ?

Q:15 Write fraction representing the shaded portion

a)

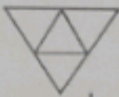


Q:16 In an examination 10000 student appear 100 of them could not clear the exam find the fraction of those students who could not clear the exam?

Q:17 Shade the portions of figures according to given fraction?



(i) $\frac{1}{6}$



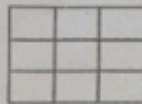
(ii) $\frac{1}{4}$



(iii) $\frac{1}{3}$



(iv) $\frac{3}{4}$



(v) $\frac{4}{9}$

Q:18 Write the fraction of even number from 32 to 45?

Q:19 Complete the table :

S.No	Fraction	Numerator	Denominator
1)	$\frac{1}{4}$		
2)	$\frac{9}{7}$		
3)	$\frac{2}{5}$		
4)	$\frac{4}{6}$		
5)	$\frac{7}{12}$		

Q:20 Write the fraction:

S.No	Numerator	Denominator	Fraction
1)	3	2	
2)	8	10	
3)	5	8	
4)	1	9	
5)	6	11	

Q:21 Find the next three virahanka numbers 1,2,3,5,8,13,21,.... ,.... ,....

Q:22 What are Fibonacci sequence? Write the number of Fibonacci sequence which are less than 200.

Q:23 Write the following number as directed using dots:

- 16 as a square pattern
- 26 as a rectangular pattern
- 28 as rectangular pattern
- 30 as two rectangular patterns

Q:24 Draw the following figures :-
Triangle, Quadrilateral, Pentagon, Hexagon, Heptagon, Octagon, Nonagon, Decagon.

Q:25 Suraj asked his friend manik for answer for adding hundred up and down that is
 $1 + 2 + 3 + \dots + 100 + 99 + 98 + \dots + 3 + 2 + 1$.

He replied without adding that it will be 100^2 . Do you think manik answer correctly can you justified his reply.

Q:26 If the current year is 2025, find in past and future when we had used and can use the same calendar?

Q:27 Do as directed:

- Add 8 hour 30 minutes and 6 hours 50 minutes.

3013	4016	7016	9018	8016	3045	9576	4852	9856
------	------	------	------	------	------	------	------	------

- subtract 6 hours 54 minutes from 17 hours 38 minutes.

Q:28

Find:

- How many supercells are there in the number strips?
- Arrange them in such a way to have maximum number of supercells.
- Arrange them in such a way that the first and last cell are the only Supercells.
- Can you arrange them in such a way that every alternate cell become a supercell?

Q:29 Start with any palindromic number and right how many steps you reach Kaprekar constant?

Q:30 Check following are Harshad number or not

- 192
- 68
- 111
- 120
- 132
- 135
- 140

Q:31 Fill in the blanks:

- A supercell is the one having..... number among its neighbouring cell
- The sum and difference of the greatest and smallest number using the digit 3, 2, 4 are
- Total number of 5 digit number is.....

Q:32 The number 7 appear how many times in number from 100 to 200?

Q:33 What is the sum of smallest and largest 4 digit palindromic number?

Q:34 How many lines segments can be drawn through 4 points?

Q:35 How many number of sides will be there in the fourth Stage of koch snowflake pattern?

Q:36 What is bar graph?

Q:37 what is range of data?

Q:38 Number of times of particular value in a data occur what does it called?

Q:39 10 hours is what fraction of a day?

Q:40 Write the fraction of negative integer from -3 to 5?

Case study:

Shobhit works in a shoe store. He records the shoe sizes and the number of pairs sold every day. On Tuesday, he sold 60 pairs. His record for the day is shown below.

Shoe size	Number of pairs sold
4	
5	
6	
7	
8	

Q. 41 How many pairs of size 8 were sold on Tuesday?

- 3
- 10
- 11
- 13

Q. 42 Which shoe size sold the most?

- Size 4
- Size 6
- Size 8
- Size 9

Q. 43 Shobhit realised that he had not fully recorded the sale for Tuesday. How many sold pairs had he not recorded?

Q.44 The unrecorded data was of shoe size 7. Shobhit corrected his record accordingly. Which of the following statements will be true now?

- (a) Shoe size 8 sold the least now
- (b) Shoe size 7 sold the most now
- (c) Shoe size 5 is the new mode of the data
- (d) Number of shoe pairs of size 3 can be calculated

Q.45 The price of one shoe pair of size 5 is 800. How much money had Shobhit collected by selling all the shoe pairs of size 5?

Puzzles:

Direction for Q.46 and Q.47:

Fill the boxes in such a way that each row, column and diagonal has the same sum.

Q:46

8	1	6
3	5	
		2

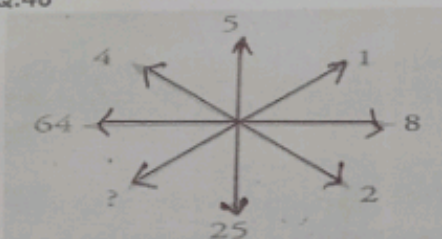
Q:47

	1	9
3	8	
	15	2

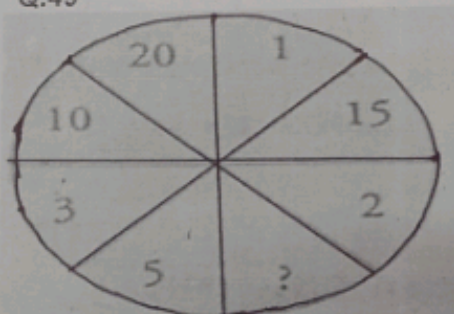
Direction for Q.48 and Q.49:

Which number will replace the question mark in the figure?

Q.48



Q.49



Q.50 Solve the below puzzle:

$$\text{Tree} + \text{Tree} + \text{Tree} = 21$$

$$\text{Star} + \text{Star} + \text{Tree} = 19$$

$$\text{Smiley} + \text{Star} + \text{Tree} = 15$$

$$\text{Tree} + \text{Star} \times \text{Smiley} = ?$$

* Art Integrated Project:-

Explain the Mathematics concepts used in Ancient toys and games of U.P.