

MATHS

NCERT - NCERT MATHS(TELUGU)

DATA HANDLING

Exercise

1. In what way is the bar graph better than the pictograph?



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2. The life span of animals is given as follows: bear-40 years, Bull-28 years, camel-50 years ,dog-22 years, donkey- 45 years, goat- 15 years, horse-10 years, cow-22 years, elephant-70 years. Draw a horizontal bar graph to represent the data.

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3. Travelling time from Hyderabad to Tirupati by different means of transport are-car-8 hours, bus-15 hours, train-12 hours, Aeroplane-1 hour. Represent using a bar diagram.

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4. Fill in the blank: Collection of information is called___

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5. Fill in the blank:The difference between the maximum and minimum marks of a data is called___

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6. Fill in the blank: In a bar graph the scale is 1 cm = 200 pens production. The length of the rectangle which represents 1900 pens is ____ cm.



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7. All the bars (or rectangles) in a bar graph have



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8. Fill in the blank: While drawing pictographs, the ____ of all the pictures should be the same.



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9. Fill in the blank: In a bar graph 'x-axis' represents ____ line.



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10. Fill in the blank: Total number of tally marks in each group (class) is called ___



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11. Fill in the blank: In a bar graphs ___ of all bars is not equal.



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12. Fill in the blank: In a bar graph, the scale is 1 cm = 8 thousands. The Length of the rectangle should be ___ cm to represent 37.6 thousand.



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13. Fill in the blank: In a pictograph 16 diagrams represent 400 vehicles then the number of vehicles represented by each diagram is ___



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14. what are the difference between pictograph and bar graph?



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Example

1. 25 students in a class got the following marks in an assignment- 5, 6, 7, 5, 4, 2, 2, 9, 10, 2, 4, 7, 4, 6, 9, 5, 5, 4, 3, 7, 9, 5, 2, 4, 5, 7. The assignment was for 10 marks.

Organise the data and represent in the form of a frequency distribution table using tally marks.



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2. Marks scored by 25 students in a class for 10 marks are 5,6,7,4,2,2,9,10,2,4,7,4,6,9,5,5,4,7,9,5,2,4,5,7. From the above data which mark was obtained by maximum students? From the above given data, number, of marks obtained by maximum students?



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3. 25 students in a class got the following marks in an assignment- 5, 6, 7, 5, 4, 2, 2, 9, 10, 2, 4, 7, 4, 6, 9, 5, 5, 4, 3, 7, 9, 5, 2, 4, 5, 7. The assignment was for 10 marks.

Find out how many students received least marks.



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4. 25 students in a class got the following marks in an assignment- 5, 6, 7, 5, 4, 2, 2, 9, 10, 2, 4, 7, 4, 6, 9, 5, 5, 4, 3, 7, 9, 5, 2, 4, 5, 7. The

assignment was for 10 marks.

How many students got 8 marks?

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5. In a class of 25, students play like various games. The details are shown in the following pictograph. (No student plays more than one game).

| Game | Number of Students |
|-----------|---|
| Kabaddi |        |
| Tennikoit |     |
| Badminton |      |
| Cricket |       |

How many students play badminton?

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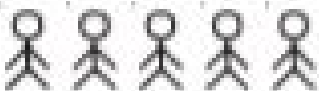

6. In a class of 25, students like various games. The details are shown in the following pictograph. (No student plays more than one game).

| Game | Number of Students |
|-----------|---|
| Kabaddi |  |
| Tennikoit |  |
| Badminton |  |
| Cricket |  |

Which game is played by most number of students?

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7. In a class of 25, students like various games. The details are shown in the following pictograph. (No student plays more than one game).





| Game | Number of Students |
|-----------|---|
| Kabaddi |  |
| Tennikoit |  |
| Badminton |  |
| Cricket |  |

What is the game in which least number of students are interested?



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8. In a class of 25, students play like various games. The details are shown in the following pictograph. (No student plays more than one game).

| Game | Number of Students |
|-----------|---|
| Kabaddi |  |
| Tennikoit |  |
| Badminton |  |
| Cricket |  |

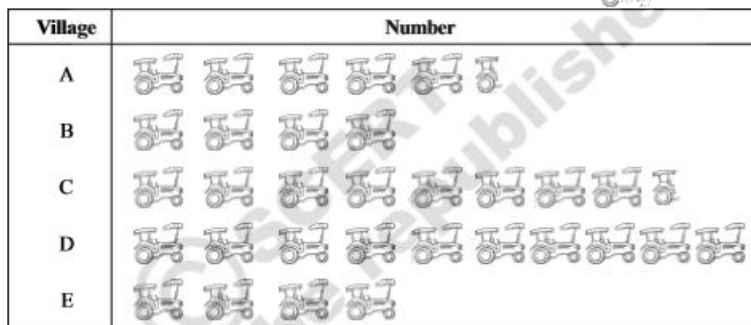
How many students do not play any game?



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9. The following pictograph shows the number of tractors in five different villages.

Scale :  = 2 Tractors

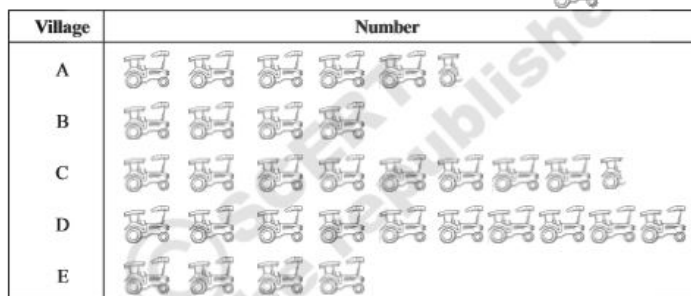


Which village has the minimum number of tractors?

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10. The following pictograph shows the number of tractors in five different villages.

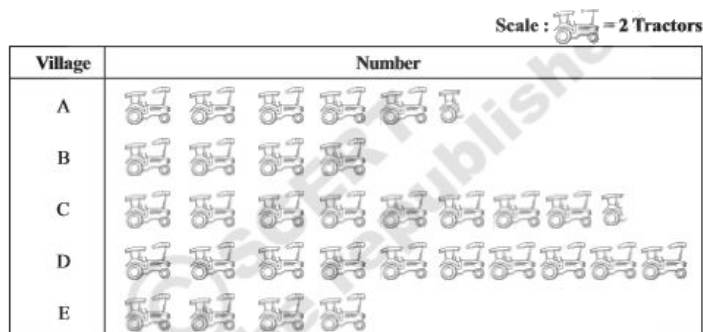
Scale :  = 2 Tractors



Which village has the maximum number of tractors?

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11. The following pictograph shows the number of tractors in five different villages.




































How many more tractors does village C have as compared to village B.



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12. The following pictograph shows the number of tractors in five different villages.

Scale :  = 2 Tractors

| Village | Number |
|---------|---|
| A |       |
| B |     |
| C |          |
| D |           |
| E |     |

What is the total number of tractors in all the five villages?

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13. 25 students in a class got the following marks in an assignment- 5, 6, 7, 5, 4, 2, 2, 9, 10, 2, 4, 7, 4, 6, 9, 5, 5, 4, 3, 7, 9, 5, 2, 4, 5, 7. The assignment was for 10 marks.

Organise the data and represent in the form of a frequency distribution table using tally marks.

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14. Marks scored by 25 students in a class for 10 marks are 5,6,7,4,2,2,9,10,2,4,7,4,6,9,5,5,4,7,9,5,2,4,5,7. From the above data which mark was obtained by maximum students? From the above given data, number, of marks obtained by maximum students?



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15. 25 students in a class got the following marks in an assignment- 5, 6, 7, 5, 4, 2, 2, 9, 10, 2, 4, 7, 4, 6, 9, 5, 5, 4, 3, 7, 9, 5, 2, 4, 5, 7. The assignment was for 10 marks.

Find out how many students received least marks.



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16. 25 students in a class got the following marks in an assignment- 5, 6, 7, 5, 4, 2, 2, 9, 10, 2, 4, 7, 4, 6, 9, 5, 5, 4, 3, 7, 9, 5, 2, 4, 5, 7. The























assignment was for 10 marks.

How many students got 8 marks?



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17. In a class of 25, students play like various games. The details are shown in the following pictograph. (No student plays more than one game).





| Game | Number of Students |
|-----------|---|
| Kabaddi |        |
| Tennikoit |     |
| Badminton |      |
| Cricket |       |

How many students play badminton?



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18. In a class of 25, students like various games. The details are shown in the following pictograph. (No student plays more than one game).





| Game | Number of Students |
|-----------|---|
| Kabaddi |  |
| Tennikoit |  |
| Badminton |  |
| Cricket |  |

Which game is played by most number of students?



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19. In a class of 25, students like various games. The details are shown in the following pictograph. (No student plays more than one game).




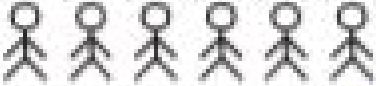
| Game | Number of Students |
|-----------|---|
| Kabaddi |  |
| Tennikoit |  |
| Badminton |  |
| Cricket |  |

What is the game in which least number of students are interested?



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20. In a class of 25, students play like various games. The details are shown in the following pictograph. (No student plays more than one game).

| Game | Number of Students |
|-----------|---|
| Kabaddi |  |
| Tennikoit |  |
| Badminton |  |
| Cricket |  |


































How many students do not play any game?



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21. The following pictograph shows the number of tractors in five different villages.


Scale :  = 2 Tractors


































| Village | Number |
|---------|---|
| A |       |
| B |     |
| C |          |
| D |           |
| E |     |

Which village has the minimum number of tractors?

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22. The following pictograph shows the number of tractors in five different villages.

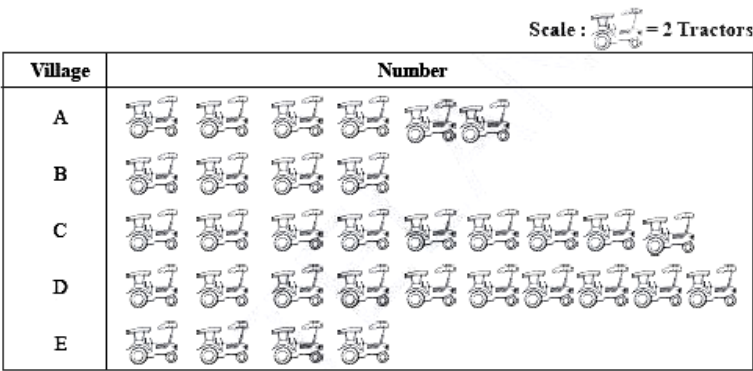
Scale :  = 2 Tractors

| Village | Number |
|---------|---|
| A |       |
| B |     |
| C |          |
| D |           |
| E |     |

Which village has the maximum number of tractors?

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23. The following pictograph shows the number of tractors in five different villages.




































How many more tractors does village C have as compared to village B.

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24. The following pictograph shows the number of tractors in five different villages.

Scale :  = 2 Tractors

| Village | Number |
|---------|---|
| A |       |
| B |     |
| C |          |
| D |           |
| E |     |

What is the total number of tractors in all the five villages?

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Try These

1. Give two examples of data in numerical figures.

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2. Give two examples of data in words?

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3. Give two examples of data in numerical figures.



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4. Give two examples of data in words?



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Think Discuss And Write

1. In what way is the bar graph better than the pictograph?



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2. In what way is the bar graph better than the pictograph?



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Exercise 8 1

1. A child's Kiddy bank is opened and the coins collected are in the following denomination.

| Type of coin | Number of coins |
|--------------|---|
| 50 Piasa |      |
| 1 Rupee |        |
| 2 Rupees |   |
| 5 Rupees |  |

Represent the data in a frequency distribution table using tally marks.

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2. The favourite colours of 25 students in a class are given below: Blue, Red, Green, White, Blue, Green, White, Red, Orange, Green, Blue, White, Blue, Orange, Blue, Blue, White, Red, White, White, Red, Green, Blue,

Blue, White. Write a frequency distribution table using tally marks for the data. Which is the least favourite colour for the students?



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3. A TV channel invited a SMS poll on 'Ban of Liquor' giving options : A - Complete ban B - Partial ban C - Continue sales They received the following SMS, in the first hour

A A B C A B B C A A

A A C C B A A C B A

A A A B B C C A A C

C B B B A A A A C

Represent the data in a frequency distribution table using tally marks.



[Watch Video Solution](#)

4. Vehicles that crossed a checkpoint between 10AM to 11AM are as follows:

Car, lorry, bus, lorry, auto, lorry, lorry, bus, auto, bike, bus, lorry, lorry, zeep, lorry, bus, zeep, car, bike, bus, car, lorry, bus, lorry, bus, bike, car, zeep, bus, lorry, lorry, bus, car, car, bike, auto. Represent the data in a frequency distribution table using tally marks.

 [Watch Video Solution](#)

5. A child's Kiddy bank is opened and the coins collected are in the following denomination.

| Type of coin | Number of coins |
|--------------|---|
| 50 Piasa |      |
| 1 Rupee |        |
| 2 Rupees |   |
| 5 Rupees |  |

Represent the data in a frequency distribution table using tally marks.

 [Watch Video Solution](#)

6. The favourite colours of 25 students in a class are given below: Blue, Red, Green, White, Blue, Green, White, Red, Orange, Green, Blue, White, Blue, Orange, Blue, Blue, White, Red, White, White, Red, Green, Blue, Blue, White. Write a frequency distribution table using tally marks for the data. Which is the least favourite colour for the students?



[Watch Video Solution](#)

7. A TV channel invited a SMS poll on 'Ban of Liquor' giving options : A - Complete ban B - Partial ban C - Continue sales They received the following SMS, in the first hour

A A B C A B B C A A

A A C C B A A C B A

A A A B B C C A A C

C B B B A A A A C

Represent the data in a frequency distribution table using tally marks.



[Watch Video Solution](#)

8. Vehicles that crossed a checkpoint between 10AM to 11AM are as follows:

Car,lorry,bus,lorry,auto,lorry,lorry,bus,auto,bike,bus,lorry,lorry,zeep,
lorry,bus,zeep,car,bike,bus,car,lorry,bus,lorry,bus,bike,car,zeep,bus,lorry,lorry,
bus,car,car,bike,auto. Represent the data in a frequency distribution
table using tally marks.

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Exercise 8 2

1. The number of wrist watches manufactured by a factory in a week are as follows. Represent the data using a pictograph. Choose a

suitable scale.

| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|---------|-----------|----------|--------|----------|
| 300 | 350 | 250 | 400 | 300 | 275 |

 [Watch Video Solution](#)

2. details of apples sold in a week by Ahmed, a fruit vendor are given here under. Prepare a pictograph for the data: [Scale: Represent 5 fruits with a symbol] : How many symbols represent the fruit sold on Tuesday?

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|--------|---------|-----------|----------|--------|----------|
| 100 | 85 | 90 | 80 | 60 | 95 | 70 |

Tuesday?



Watch Video Solution

3. details of apples sold in a week by Ahmed, a fruit vendor are given here under. Prepare a pictograph for the data: [Scale: Represent 5 fruits with a symbol] : How many symbols represent the fruit sold on Tuesday?

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|--------|---------|-----------|----------|--------|----------|
| 100 | 85 | 90 | 80 | 60 | 95 | 70 |

Tuesday?



Watch Video Solution

4. Votes polled for various candidates in a sarpanch election are shown below, against their symbols in the following table.

| Symbol | Sun | Pot | Tree | Watch |
|-----------------|-----|-----|------|-------|
| Number of votes | 400 | 550 | 350 | 200 |

Represent the data using a pictograph. Choose a suitable scale.

Answer the following questions:

Which symbol got least votes?



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5. Votes polled for various candidates in a sarpanch election are shown below against their symbols in the following table. Represent the data using a pictograph. Choose a suitable scale: Which symbol candidate won in the election?

| Symbol | Sun | Pot | Tree | Watch |
|-----------------|-----|-----|------|-------|
| Number of votes | 400 | 550 | 350 | 200 |



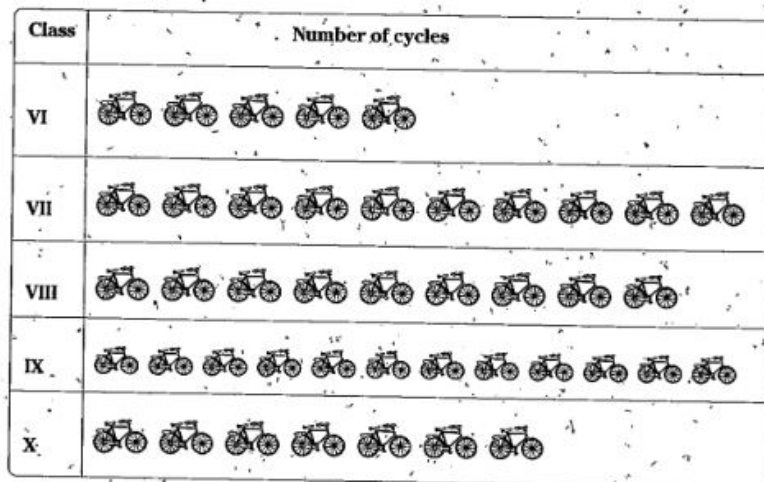
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6. The following pictograph shows the number of students' cycles, in five classes of a school. Which class students have the maximum

number

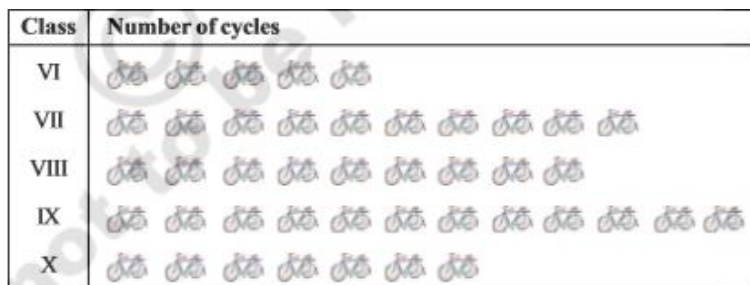
of

cycles?



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7. The following pictograph shows the number of student cycles, in five classes of a school.

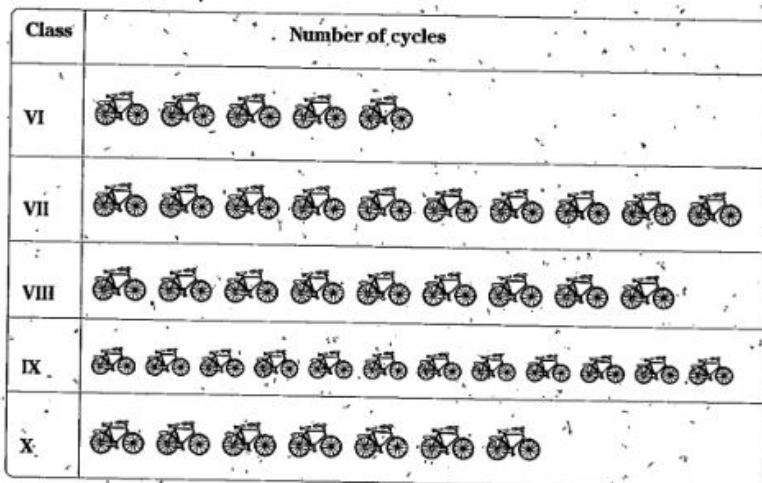


Answer the following questions based on the pictograph given above-












































Which class students have the minimum number of cycles?

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8. The following pictograph shows the number of students' cycles, in five classes of a school. Which class students have 9 cycles?

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9. The following pictograph shows the number of student cycles, in five classes of a school.


| Class | Number of cycles |
|-------|---|
| VI |      |
| VII |           |
| VIII |          |
| IX |             |
| X |        |




















Answer the following questions based on the pictograph given above-

What is the total number of cycles in all the five classes?

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10. The sale of television sets of different companies on a day is shown in the pictograph given below.

Scale :  = 5 televisions

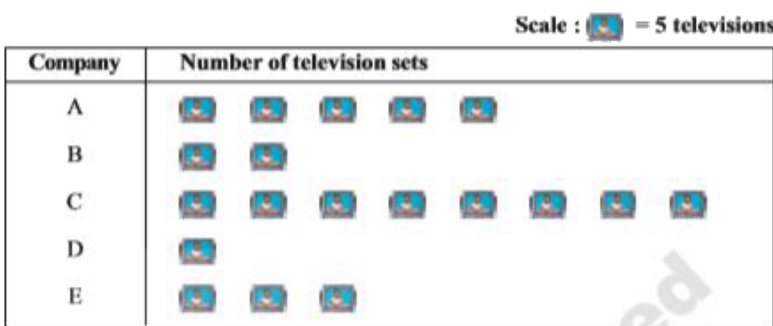
| Company | Number of television sets |
|---------|---|
| A |      |
| B |   |
| C |         |
| D |  |
| E |    |

Answer the following questions:

How many TVs of company A were sold?

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11. The sale of television sets of different companies on a day is shown in the pictograph given below.



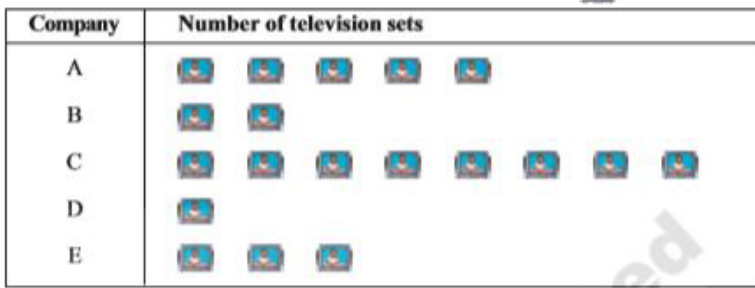
Answer the following questions:

Which company's TVs are people more crazy about?

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12. The sale of television sets of different companies on a day is shown in the pictograph given below.

Scale :  = 5 televisions



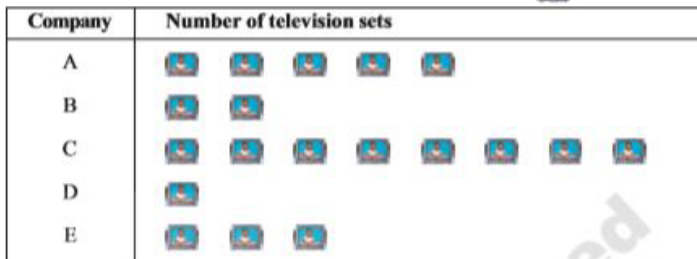
Answer the following questions:

Which company sold 15 TV sets?

 [Watch Video Solution](#)

13. The sale of television sets of different companies on a day is shown in the pictograph given below.

Scale :  = 5 televisions

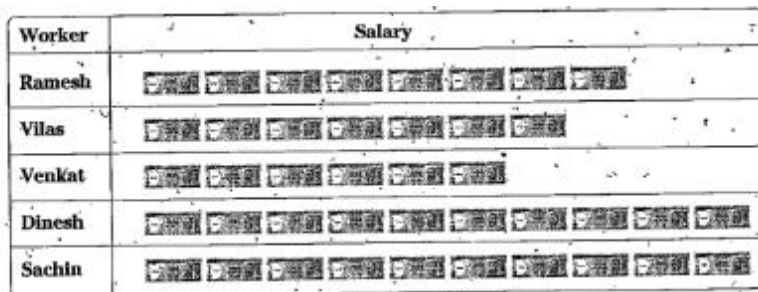


Answer the following questions:

Which company had the least sale?

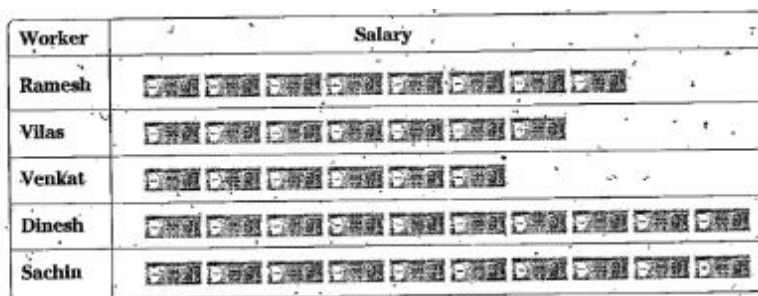
 [Watch Video Solution](#)

14. Monthly salaries of 5 workers are shown in the pictograph given below: Who earns more salary?



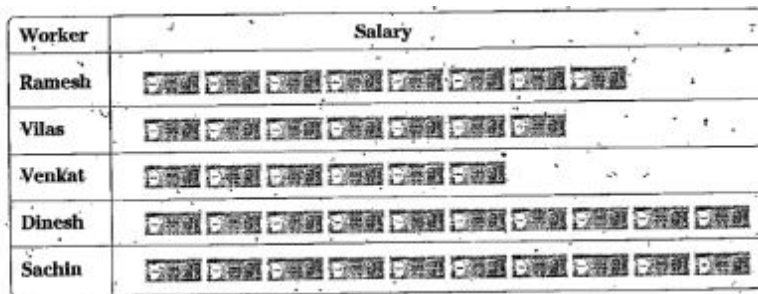
 Watch Video Solution

15. Monthly salaries of 5 workers are shown in the pictograph given below: Who earns more salary?



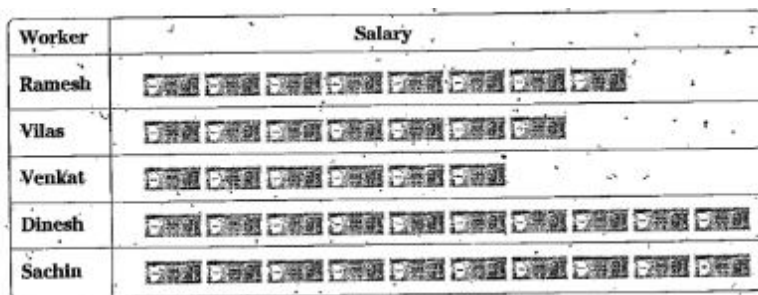
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16. Monthly salaries of 5 workers are shown in the pictograph given below: Who earns more salary?



 Watch Video Solution

17. Monthly salaries of 5 workers are shown in the pictograph given below: Who earns more salary?



 Watch Video Solution

18. The number of wrist watches manufactured by a factory in a week are as follows. Represent the data using a pictograph. Choose a suitable scale.

| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|---------|-----------|----------|--------|----------|
| 300 | 350 | 250 | 400 | 300 | 275 |

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19. details of apples sold in a week by Ahmed, a fruit vendor are given here under. Prepare a pictograph for the data: [Scale: Represent 5 fruits with a symbol] : How many symbols represent the fruit sold on

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|--------|---------|-----------|----------|--------|----------|
| 100 | 85 | 90 | 80 | 60 | 95 | 70 |

Tuesday?

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20. details of apples sold in a week by Ahmed, a fruit vendor are given here under. Prepare a pictograph for the data: [Scale: Represent 5

fruits with a symbol] : How many symbols represent the fruit sold on

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|--------|---------|-----------|----------|--------|----------|
| 100 | 85 | 90 | 80 | 60 | 95 | 70 |

Tuesday?



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21. Votes polled for various candidates in a sarpanch election are shown below, against their symbols in the following table.

| Symbol | Sun | Pot | Tree | Watch |
|-----------------|-----|-----|------|-------|
| Number of votes | 400 | 550 | 350 | 200 |

Represent the data using a pictograph. Choose a suitable scale.

Answer the following questions:

Which symbol got least votes?



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22. Votes polled for various candidates in a sarpanch election are shown below against their symbols in the following table. Represent the data using a pictograph. Choose a suitable scale: Which symbol

candidate won in the election?

| Symbol | Sun | Pot | Tree | Watch |
|-----------------|-----|-----|------|-------|
| Number of votes | 400 | 550 | 350 | 200 |

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23. The following pictograph shows the number of student cycles, in five classes of a school.

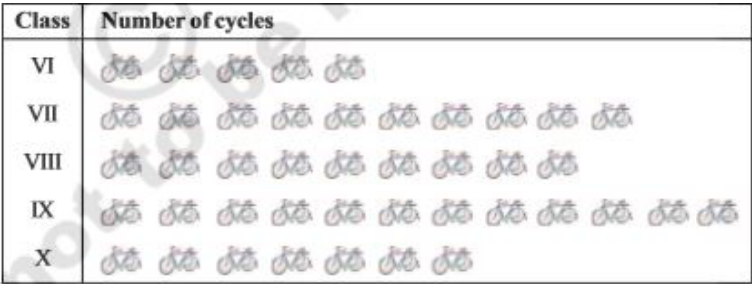
| Class | Number of cycles |
|-------|---|
| VI |      |
| VII |           |
| VIII |          |
| IX |            |
| X |       |

Answer the following questions based on the pictograph given above-

Which class students have the maximum number of cycles?

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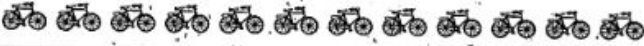

24. The following pictograph shows the number of student cycles, in five classes of a school.



Answer the following questions based on the pictograph given above-
Which class students have the minimum number of cycles?

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25. The following pictograph shows the number of students' cycles, in five classes of a school. Which class students have 9 cycles?

| Class | Number of cycles |
|-------|---|
| VI |  |
| VII |  |
| VIII |  |
| IX |  |
| X |  |



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26. The following pictograph shows the number of student cycles, in five classes of a school.

| Class | Number of cycles |
|-------|---|
| VI |  |
| VII |  |
| VIII |  |
| IX |  |
| X |  |

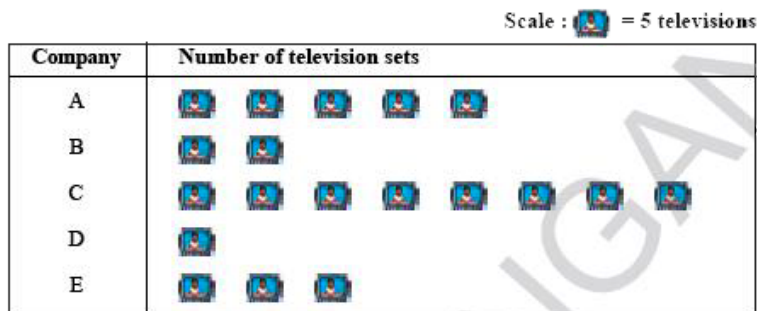
Answer the following questions based on the pictograph given above-

What is the total number of cycles in all the five classes?



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27. The sale of television sets of different companies on a day is shown in the pictograph given below.























Answer the following questions:

How many TVs of company A were sold?

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28. The sale of television sets of different companies on a day is shown in the pictograph given below.

Scale :  = 5 televisions


| Company | Number of television sets |
|---------|---|
| A |      |
| B |   |
| C |         |
| D |  |
| E |    |




















Answer the following questions:

Which company's TVs are people more crazy about?

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29. The sale of television sets of different companies on a day is shown in the pictograph given below.

Scale :  = 5 televisions


| Company | Number of television sets |
|---------|---|
| A |      |
| B |   |
| C |         |
| D |  |
| E |    |

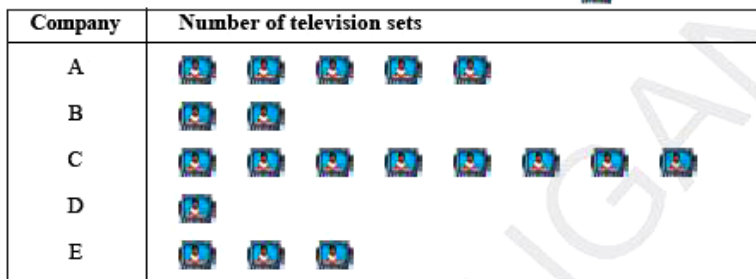
Answer the following questions:

Which company sold 15 TV sets?

 [Watch Video Solution](#)

30. The sale of television sets of different companies on a day is shown in the pictograph given below.

Scale :  = 5 televisions





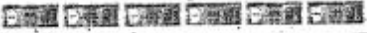


Answer the following questions:

Which company had the least sale?



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31. Monthly salaries of 5 workers are shown in the pictograph given below: What is the scale used in the pictograph?

| Worker | Salary |
|--------|---|
| Ramesh |  |
| Vilas |  |
| Venkat |  |
| Dinesh |  |
| Sachin |  |

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32. Monthly salaries of 5 workers are shown in the pictograph given below:

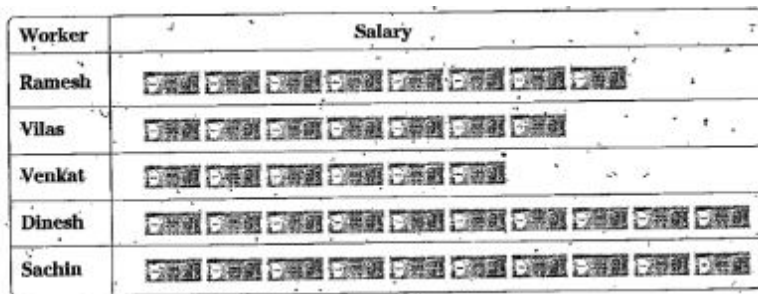


Answer the following questions:

How much is Sachin's salary?

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33. Monthly salaries of 5 workers are shown in the pictograph given below: Who earns more salary?



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34. Monthly salaries of 5 workers are shown in the pictograph given below:

Scale :  = 1000 rupees



Answer the following questions:

How much is Ramesh's salary more than Vilas's?

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Exercise 8 3

1. The life span of animals is given as follows: bear-40 years, Bull-28 years, camel-50 years ,dog-22 years, donkey- 45 years, goat- 15 years, horse-10 years, cow-22 years, elephant-70 years. Draw a horizontal bar graph to represent the data.

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2. the following table shows the monthly expenditure of Imran's family on various items. Construct a vertical bar diagram to represent the

| Item | House rent | Food | Education | Electricity | Transport | Misc |
|----------------------------|------------|------|-----------|-------------|-----------|------|
| Expenditure (in Rupees) | 3000 | 3400 | 800 | 400 | 600 | 1200 |

above data.

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3. Travelling time from Hyderabad to Tirupathi by different means of transport are: Car- 8 hours, Bus- 15 years, Train- 12 years, Aeroplane – 1 hour, Represent the information using a bar diagram.



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4. A survey of 120 school students was conducted to find which activity they prefer to do in their free time.

| Preferred activity | Playing | Reading story books | Watching TV | Listening to music | Painting |
|--------------------|---------|---------------------|-------------|--------------------|----------|
| Number of students | 25 | 10 | 40 | 10 | 15 |

Draw a bar graph to illustrate the above data.



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5. The life span of animals is given as follows: bear-40 years, Bull-28 years, camel-50 years ,dog-22 years, donkey- 45 years, goat- 15 years, horse-10 years, cow-22 years, elephant-70 years. Draw a horizontal bar graph to represent the data.

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6. the following table shows the monthly expenditure of Imran's family on various items. Construct a vertical bar diagram to represent the

| Item | House rent | Food | Education | Electricity | Transport | Misc |
|-------------------------|------------|------|-----------|-------------|-----------|------|
| Expenditure (in Rupees) | 3000 | 3400 | 800 | 400 | 600 | 1200 |

above data.

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7. Travelling time from Hyderabad to Tirupathi by different means of transport are: Car- 8 hours, Bus- 15 years, Train- 12 years, Aeroplane – 1 hour, Represent the information using a bar diagram.

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8. A survey of 120 school students was conducted to find which activity they prefer to do in their free time.

| Preferred activity | Playing | Reading story books | Watching TV | Listening to music | Painting |
|--------------------|---------|---------------------|-------------|--------------------|----------|
| Number of students | 25 | 10 | 40 | 10 | 15 |

Draw a bar graph to illustrate the above data.



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