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1. There is a 4 inch cube painted on all sides. This is cut down into of 1 inch cubes. What is the no of cubes which have no pointed sides.

Ans: 8

2. At 6'o a clock ticks 6 times. The time between first and last ticks is 30 seconds. How long does it tick at 12'o clock.

Ans: 66 sec.

3. Complete the series: 5, 20, 24, 6, 2, 8, ?

Ans: 12 (as 5*4=20, 20+4=24, 24/4=6, 6-4=2, 2*4=8, 8+4=12).

4. Find the values of each of the alphabets.

NOON

SOON

+ MOON

JUNE

Ans: 9326

5. If a clock takes 7seconds to strike 7, how long will the same clock take to strike 10?

Ans: The clock strikes for the first time at the start and takes 7 seconds for 6 intervals-thus for one interval time taken=7/6. Therefore, for 10 seconds there are 9 intervals and time taken is 9*7/6=10 and 1/2 seconds.

6. An escalator is descending at constant speed. A walks down and takes 50 steps to reach the bottom. B runs down and takes 90 steps in the same time as A takes 10 steps. How many steps are visible when the escalator is not operating?

Ans: 150 steps

7. A chain is broken into three pieces of equal lengths containing 3 links each. It is taken to a blacksmith to join into a single continuous one. How many links are to to be opened to make it?

Ans: 2.

8. There is a safe with a 5 digit number as the key. The 4th digit is 4 greater than second digit, while 3rd digit is 3 less than 2nd digit. The 1st digit is thrice the last digit. There are 3 pairs whose sum is 11. Find the number.

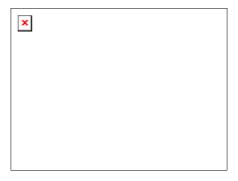
Ans: 65292

9. An orange glass has orange juice and white glass has apple juice both of equal volumes. 50ml of the orange juice is taken and poured into the apple juice. 50ml from the white glass is poured into the orange glass. Of the two quantities, the amount of apple juice in the orange glass and the amount of orange juice in the white glass, which one is greater and by how much?

Ans: The two quantities are equal

10. The shape in the sketch below is that of a square attached to half of a similar square. Divide it into four equal pieces

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Ans: Hint: the figure can be divided into 12 equal triangles

11. Fifty minutes ago if it was four times as many minutes past three o' clock, how many minutes is it to six o' clock?

Ans: Twenty six minutes.

12. Everyday in his business a merchant had to weigh amounts from 1 kg to 121kgs, to the nearest kg.

What are the minimum number of weight required and how heavy should they be?

Ans: .The minimum number is 5 and they should weigh 1,3,9,27 and 81kgs.

13. A car is traveling at a uniform speed. The driver sees a milestone showing a 2-digit number. After traveling for an hour the driver sees another milestone with the same digits in reverse order. After another hour the driver sees another milestone containing the same two digits. What is the average speed of the driver.

Ans: 45kmph

14. A hotel has 10 storeys. Which floor is above the floor below the floor, below the floor above the floor, below the

floor above the fifth.

Ans: The sixth floor.

15. Albert and Fernandes have two leg swimming race. Both start from opposite ends of the pool. On the first leg, the boys pass each other at 18 m from the deep end of the pool. During the second leg they pass at 10 m from the shallow end of the pool. Both go at constant speed but one of them is faster. Each boy rests for 4 seconds at the end of the first leg. What is the length of the pool?

Ans.

16. Shahrukh speaks truth only in the morning and lies in the afternoon, whereas Salman speaks truth only in the afternoon. A says that B is Shahrukh. Is it morning or afternoon and who is A - Shahrukh or Salman.

Ans: Afternoon; A is Salman.

17. A person with some money spends 1/3 for cloths, 1/5 of the remaining for food and 1/4 of the remaining for travel.

He is left with Rs 100/-. How much did he have with him in the beginning?

Ans: Rs 250/-

18. Ram, Shyam and Gumnaam are friends.

Ram is a widower and lives alone and his sister takes care of him.

Shyam is a bachelor and his niece cooks his food and looks after his house.

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Gumnaam is married to Gita and lives in large house in the same town.

Gita gives the idea that all of them could stay together in the house and share monthly expenses equally.

During their first month of living together, each person contributed Rs.25. At the end of the month, it was found that Rs 92 was the expense so the remaining amount was distributed equally among everyone. The distribution was such that everyone received a whole number of Rupees. How much did each person receive?

Ans. Rs 2 (Hint: Ram' s sister, Shyam' s niece and Gumnaam' s wife are the same person)

19. There are 3 societies A, B, C. A lent cars to B and C as many as they had already. After some time B gave as many tractors to A and C as many as they have. After sometime c did the same thing. At the end of this transaction each one of them had 24. Find the cars each originally had.

Ans: A had 39 cars, B had 21 cars & C had 12 cars

- 20. Sam and Mala have a conversation.
 - λ Sam says I am certainly not over 40
 - λ Mala says I am 38 and you are at least 5 years older than me
 - λ Now Sam says you are at least 39

All the statements by the two are false. How old are they really?

Ans: Mala = 38 yrs, Sam = 41 yrs.

21. Each alphabet stands for one digit in the following multiplication.

```
THIS

\frac{x \quad IS}{X \quad F \quad X \quad X}

\frac{X \quad X \quad Y \quad X}{X \quad X \quad X \quad X}

What is the maximum value T can take?

Ans: T max value = 4
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22. Grass in lawn grows equally thick and in a uniform rate. It takes 24 days for 70 cows and 60 days for 30 cows to eat the whole of the grass. How many cows are needed to eat the grass in 96 days.?

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Ans: 20 [Hint: g - grass at the beginning r - rate at which grass grows, per day y - rate at which one cow eats grass, per day n - no of cows to eat the grass in 96 days g + 24*r = 70*24*y g + 96*r = n*96*y, Solving, n = 20.]
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- **23.** Three criminals were arrested for shop lifting. However, when interrogated only one told the truth in both his statements, while the other two each told one true statement and one lie. The statements were:
 - λ **ALBERT**: (a) Chander passed the merchandise. (b) Bruce created the diversion.
 - λ **BRUCE** :(a) Albert passed the merchandise. (b) I created the diversion.
 - λ **CLIVE** :(a) I took the goods out of the shop. (b) Bruce passed them over.

Ans: Albert passed the goods. Bruce created the diversion. Clive took the goods out of

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the shop.

24. I bought a car with a peculiar 5 digit numbered license plate which on reversing could still be read. On reversing value is increased by 78633. Whats the original number if all digits were different?

Ans: Only 0 1 6 8 and 9 can be read upside down. So on rearranging these digits we get the answer as 10968

25. There N stations on a railroad. After adding X stations on the rail route 46 additional tickets have to be printed.

Find N and X.

Ans. x=2 and N=11 (Let initially, N(N-1)=t; After adding, (N+X)(N+X-1)=t+46; Trail and error method)

26. Complete the Table given below:

Three football teams are there. Given below is the group table. Fill in the x's

	Played	Won	Lost	Draw	Goals For	Goals Against
A	2	2	X	X	X	1
В	2	X	X	1	2	4
C	2	X	X	X	3	7

Ans: The filled table is given below

	Played	Won	Lost	Draw	Goals For	Goals Against
A	2	2	0	0	7	1
В	2	0	1	1	2	4
C	2	0	1	1	3	7

- **27.** A bird keeper has got P pigeons, M mynas and S sparrows. The keeper goes for lunch leaving his assistant to watch the birds.
 - λ Suppose p=10, m=5, s=8 when the bird keeper comes back, the assistant informs the x birds have escaped. The bird keeper exclaims: "Oh no! All my sparrows are gone." How many birds flew away?
 - λ When the bird keeper comes back, the assistant told him that x birds have escaped. The keeper realized that at least 2 sparrows have escaped.

What is minimum no of birds that can escape?

Ans.

28. Seven members sat around a table for three days for a conference.

The member's names were Abhishek, Amol, Ankur, Anurag, Bhuwan, Vasu and Vikram.

The meetings were chaired by Vikram.

On the first evening members sat around the table alphabetically.

On the following two nights, Vikram arranged the seating so that he could have Abhishek as near to him as

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possible and absent minded Vasu as far away as he could.

On no evening did any person have sitting next to him a person who had previously been his neighbor.

How did Vikram manage to seat everybody to the best advantage on the second and third evenings?

Ans: **Second evening**: Vikram, Ankur, Abhishek, Amol, Vasu, Anurag and Bhuwan. **Third evening**: Vikram, Anurag, Abhishek, Vasu, Bhuwan, Ankur, Amol.

- **29.** Two twins have certain peculiar characteristics. One of them always lies on Monday, Wednesday, Friday. The other always lies on Tuesdays, Thursdays and Saturdays. On the other days they tell the truth. You are given a conversation.
 - λ Person A-- today is Sunday my name is Anil
 - λ Person B -- today is Tuesday, my name is Bill

What day is today?

Ans: Today is Tuesday.

- **30.** Four prisoners escape from a prison. The prisoners, Mr. East, Mr. West, Mr. South, Mr. North head towards different directions after escaping. The following information of their escape was supplied:
 - λ The escape routes were The North Road, South Road, East Road and West Road.
 - λ None of the prisoners took the road which was their namesake.
 - λ Mr. East did not take the South Road
 - λ Mr. West did not the South Road.
 - λ The West Road was not taken by Mr. East

What road did each of the prisoners take to make their escape?

Ans: Mr. East took the North Road Mr. West took the East Road Mr. North took the South Road

Mr. South took the West Road.

31. A hotel has two wings, the east wing and the west wing. Some east wing rooms but not all have an ocean view.

All west wing rooms have a harbor view. The charge for all rooms is identical, except as follows:

- λ Extra charge for all harbor view rooms on or above the 3rd floor
- λ Extra charge for all ocean view rooms except those without balcony
- λ Extra charge for some harbor rooms on the first two floor & some east wing rooms without ocean view but

having kitchen facilities.

Which of the following cannot be determined on the basis of the information given:

- I. Whether there are any rooms without a balcony for which an extra charge is imposed.
- II. Whether any room without a kitchen or a view involves an extra charge.
- III. Whether two extra charges are imposed for any room.

(A) I only (B) II only (C) III only (

(C) III only (D) II and III only (E) I,

II and III

Ans: (A)

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- **32.** Given that April 1 is Tuesday. A, B, C are 3 persons told that their farewell party was on
 - λ A May 8, Thursday
 - λ B May 10, Tuesday
 - λ C June 5, Friday

Out of A, B, C only one made a completely true statement concerning date, day and month. The other told two one told the day right and the other the date right. What is correct date, month, day.

Ans: B - (May 10) SUNDAY, C - June 6 (Friday).

- **33.** Answer the following questions based on the conditions from the choices A, B, C, D, E as described below:
 - (A) if a definite conclusion can be drawn from condition 1
 - (B) if a definite conclusion can be drawn from condition 2
 - (C) if a definite conclusion can be drawn from condition 1 and 2
 - (D) if a definite conclusion can be drawn from condition 1 or 2
 - (E) no conclusion can be drawn using both conditions
 - λ person 1 says N<5
 - λ person says N>5
 - λ person 3 says 3N>20
 - λ person 4 says 3N>10
 - λ person 5 says N<8

What is the value of N?

- a) 1. No of persons who speak false being less than no of persons who tells the truth.
 - 2. Person 2 is telling the truth.

Ans.

- b) 1. no of persons telling the truth is greater than no of persons telling lies
 - 2. person 5 is telling the truth.

Ans.