1. Three friends divided some bullets equally. After all of them shot 4 bullets the total number of bullets remaining is equal to the bullets each had after division. Find the original number divided.

Ans: 18 (Initially . x x x
Now x-4 x-4 x-4) Equation is 3x-12 = x

2. A ship went on a voyage. After it had traveled 180 miles a plane started with 10 times the speed of the ship.
Find the distance when they meet from starting point.

Ans: 200miles. (Distance traveled by plane = 1/10 distance traveled by ship + 180)

3. Replace each letter by a digit. Each letter must be represented by the same digit and no beginning letter of a word can be 0.

O N E
O N E
O N E
O N E
T E N

Ans: O =1, N = 8 ,E = 2, T = 7

4. In a railway station, there are two trains going. One in the harbor line and one in the main line, each having a frequency of 10 minutes. The main line service starts at 5 o'clock and the harbor line starts at 5.02A.M. A man goes to the station every day to catch the first train that comes. What is the probability of the man catching the first train?

Ans: 0.8

5. Next number in the series is: 1 , 2 , 4 , 13 , 31 , 112 , ?

Ans: 224. (No number has digits more than 4. All of them are 1 , 2, 4, 8 , 16 , 32 , 64 converted to base 5)

6. Father's age is three years more than three times the son's age. After three years, father's age will be ten years more than twice the son's age. What is the father's present age?

Ans: 33 years.

7. Light glows for every 13 seconds . How many times did it glow between 1:57:58 and 3:20:47 am.

Ans : 383 + 1 = 384

8. From a vessel, 1/3rd of the liquid evaporates on the first day. On the second day 3/4th of the remaining liquid evaporates. What fraction of the volume is present at the end of the second day.

Ans: 50%

9. Supposing a clock takes 7 seconds to strike 7. How long will it take to strike 10?

Ans: 10 1/2 seconds.

10. There are 20 poles with a constant distance between each pole. A car takes 24 second to reach the 12th pole.
How much will it take to reach the last pole.

Ans: 41.45 seconds (Let the distance between two poles = x, Hence 11x:24::19x:?)

11. How can 1000000000 be written as a product of two factors neither of them containing zeros

Ans: 2 power 9 x 5 power 9

12. Two trains starting at same time, one from Bangalore to Mysore and other in opposite direction arrive at their
destination 1 hr and 4 hours respectively after passing each other. How much faster is one train from other?

Ans: Twice

13. Every day a cyclist meets a train at a particular crossing. The road is straight before the crossing and both are traveling in the same direction. The cyclist travels with a speed of 10kmph. One day the cyclist comes late by 25 min. and meets the train 5km before the crossing. What is the speed of the train?

Ans: 60kmph

14. A man collects cigarette stubs and makes one full cigarette with every 8 stubs. If he gets 64 stubs how many full cigarettes can he smoke.

Ans: 8+1=9

15. The minute and the hour hand of a watch meet every 65 minutes. How much does the watch lose or gain time and by how much?

Ans: Gains; 5/11 minutes

16. A survey was taken among 100 people to find their preference of watching T. V. programs. There are 3 channels. Given the no of people who watch

- at least channel 1
- at least channel 2
- at least channel 3
- no channels at all
- at least channels 1and 3
- at least channels 1 and 2
- at least channels 2 and 3

Find the no of people who watched all three.

Ans.

17. Two trains start from stations A and B spaced 50kms apart at the same time and speed. As the trains start, a bird flies from one train towards the other and on reaching the second train, it flies back to the first train. This is repeated till the trains collide. If the speed of the trains is 25 km/h and that of the bird is 100km/h. How much did the bird travel till the collision.

Ans: 100kms.

18. Four persons A, B, C and D are playing cards. Each person has one card, laid down on the table below him, which has two different colors on either side. The colors visible on the table are Red, Green, Red and Blue. They see the color on the reverse side and give the following comment.

A: Yellow or Green B: Neither Blue nor Green
C: Blue or Yellow D: Blue or Yellow

Given that out of the 4 people 2 always lie find out the colors on the cards each person.

Ans.

19. Sometime after 10:00 PM a murder took place. A witness claimed that the clock must have stopped at the time of the shooting. It was later found that the position of both the hands were the

same but their positions had interchanged.
Tell the time of the shooting (both actual and claimed).

Ans: Time of shooting = 11:54 PM
Claimed Time = 10:59 PM

20. Some statements are given below:

- L says all of my other four friends have money
- M says that P said that exactly one among them has money
- N says that L said that precisely two among them have money
- O says that M said that three of the others have money
- P, L and N said that they have money

All the above statement are false. Who has money & who doesn't have any money?

Ans.

21. The Bulls, Pacers, Lakers and Jazz ran for a contest. Anup, Sujit, John made the following statements regarding results.

- Anup said either Bulls or Jazz will definitely win
- Sujit said he is confident that Bulls will not win
- John said he is confident that neither Jazz nor Lakers will win

When the result came, it was found that only one of the above three had made a correct statement. Who has made the correct statement and who has won the contest.

Ans: Sujith; Lakers

22. There are five persons with surnames Mukherjee, Misra, Iyer, Patil and Sharma. There are 4 persons having first or middle name of Kumar, 3 persons with Mohan, 2 persons with Dev and 1 Anil. Either Mukherjee and Patil have a first or middle name of Dev or Misra and Iyer have their first or middle name of Dev. Of Mukherkjee and Misra, either both of them have a first or middle name of Mohan or neither have a first or middle name of Mohan. Either Iyer or Sharma has a first or middle name of Kumar but not both. Who has the first or middle name of Anil?

Ans: Kumar Misra Dev, Mohan Iyer Dev, Kumar Patil Mohan, Mohan Sharma Kumar

23. Ann, Boobie, Cathy and Dave are at their monthly business meeting. Their occupations are author, biologist, chemist and doctor, but not necessarily in that order. Dave just told the biologist that Cathy was on her way with doughnuts. Ann is sitting across from the doctor and next to the chemist. The doctor was thinking that Boobie was a goofy name for parent's to choose, but didn't say anything. What is each person's occupation?

Ans: Since Dave spoke to the biologist and Ann sat next to the chemist and across the doctor, Cathy must be the author and Ann the biologist. The doctor didn't speak, but David did, so Bobbie is the doctor and Dave the chemist.

24. There are 6 volumes of books on a rack kept in order (i.e. vol.1, vol. 2 and so on). Give the position after the following changes were noticed.

- All books have been changed
- Vol.5 was directly to the right of Vol.2
- Vol.4 has Vol.6 to its left and both weren't at Vol.3's place
- Vol.1 has Vol.3 on right and Vol.5 on left
- An even numbered volume is at Vol.5's place

Find the order in which the books are kept now.

Ans: 2 , 5 , 1 , 3 , 6 , 4

25. A soldier looses his way in a thick jungle. At random he walks from his camp but mathematically in an interesting fashion. First he walks one mile East then half mile to North. Then 1/4 mile to West, then 1/8 mile to South and so on making a loop. Finally how far he is from his camp and in which direction.

Ans: Distance traveled in north and south directions:

1/2 - 1/8 + 1/32 - 1/128 + 1/512 - ..... = 1/2/((1-(-1/4))

Similarly in east and west directions:

1- 1/4 + 1/16 - 1/64 + 1/256 - ..... = 1/((1- (- 1/4)) Add both the answers

26. Conversation between two mathematicians:

First : I have three children. The product of their ages is 36. If you sum their ages, it is exactly same as my neighbor' s door number on my left.

The second mathematician verifies the door number and says that it is not sufficient. Then the first says " Ok one more clue is that my youngest is really the youngest". Immediately the second mathematician answers. Can you answer the question asked by the first mathematician? What are the children ages?

Ans 1,6 and 6

27. 500 men are arranged in an array of 10 rows and 50 columns according to their heights. Tallest among each row of all are asked to fall out. And the shortest among them is A. Similarly after resuming that to their original positions that the shortest among each column are asked to fall out. And the tallest among them is B. Now who is taller among A and B ?

Ans. A

28. There are six boxes containing 5 , 7 , 14 , 16 , 18 , 29 balls of either red or blue in color. Some boxes contain only red balls and others contain only blue. One sales man sold one box out of them and then he says, " I have the same number of red balls left out as that of blue ". Which box is the one he sold out ?

Ans: Total no of balls = 89 and (89-29 /2) = 60/2 = 30 and also 14 + 16 = 5 + 7 + 18 = 30

29. Ram Singh goes to his office in the city, every day from his suburban house. His driver Gangaram drops him at the railway station in the morning and picks him up in the evening. Every evening Ram Singh reaches the station at 5 O' Clock. Gangaram also reaches at the same time. One day Ram Singh started early from his office and came to the station at 4 O' Clock. Not wanting to wait for the car he starts walking home. Mangaram starts at normal time, picks him up on the way and takes him back house, half an hour early. How much time did Ram Singh walk?

Ans.

30. A family X went for a vacation. Unfortunately it rained for 13 days when they were there. But whenever it rained in the mornings, they had clear afternoons and vice versa. In all they enjoyed 11 mornings and 12 afternoons. How many days did they stay there totally?

Ans: 18

31. There are N coins on a table and there are two players A & B. You can take 1 or 2 coins at a time. The person who takes the last coin is the loser. A always starts first.

- If N=7

(a) A can always win by taking two coins in his first chance
(b) B can win only if A takes two coins in his first chance.
(c) B can always win by proper play
(d) none of the above
Ans.

- 2. A can win by proper play if N is equal to
(a) 13 (b) 37 (c) 22 (d) 34 (e) 48
Ans: (e.)
- 3. B can win by proper play if N is equal to
(a) 25 (b)26 (c) 32 (d) 41 (e) none
Ans.
- 4. if N<4, can A win by proper play always?
(a) Yes (b) No
Ans.

32. Mr. Mathurs jewels have been stolen from his bank locker. The bank has lockers of 12 people which are arranged in an array of 3 rows and 4 columns like:

1	2	3	4
5	6	7	8
9	10	11	12

- The locker belonging to JONES was to the right of BLACK' S locker and directly above MILLAR' S.
- BOOTH' S locker was directly above MILLAR' S.
- SMITH' S locker was also above GRAY' s (though not directly).
- GREEN' S locker was directly below SMITH' S.
- WILSON' S locker was between that of DAVIS and BOOTH.
- MILLAR' S locker was on the bottom row directly to the right of HERD' S.
- WHITE' S locker was on the bottom right hand corner in the same column as BOOTH' S.

Which box belonged to Mr. Mathurs?
Ans: Box number 9 belongs to Mr. Mathurs.

33. Five people A ,B ,C ,D ,E are related to each other. Four of them make one true statement each as follows.
(i) B is my father' s brother.
(ii) E is my mother-in-law.
(iii) C is my son-in-law' s brother
(iv) A is my brother' s wife.
Ans: (i) D (ii) B (iii) E (iv) C