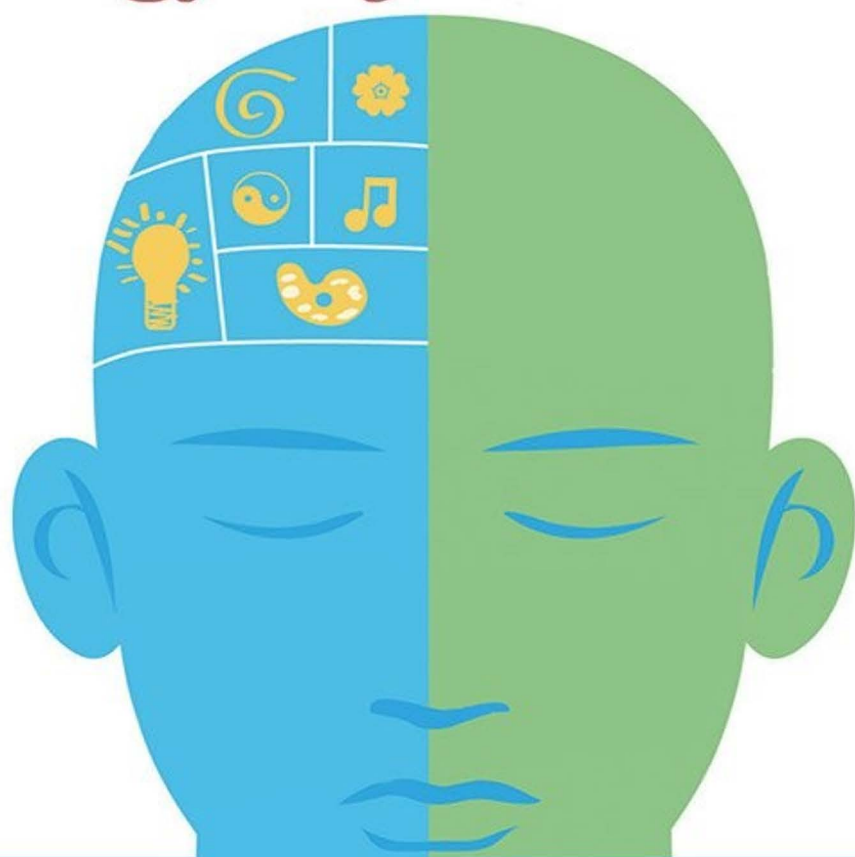


DEVELOPING RIGHT BRAIN

Best gift to your beloved



YANDAMOORI VEERENDRANATH

MORE THAN 300 PUZZLES

**TECHNIQUES TO EXPAND
INTELLEGEENCE AND LATERAL THINKING**

Developing Right Brain

Best gift to your beloved

Yandamoori
Veerendranath

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DR. YANDAMOORI VEERENDRANATH

Veerendranath worked in various financial institutions as a senior executive, an acclaimed novelist, playwright, movie director and a personality development motivator.

His works have been translated into Tamil, Kannada, Malayalam, English and Hindi. His TV Serials won Golden Nandi awards for best direction and production. He penned dialogues for '*Oka voori katha*' that won best regional film award from President of India. He is associated with more than 30 Telugu films.

In an opinion poll conducted by a magazine *Andhra Jyoti* in 1982, he was one among "Four Most popular persons" of the state, others being N.T. Ramarao, Bapu etc.

He built an ashram at Kakinada, a one-crore project to indoctrinate the importance of education to tribal students free of cost.

He delivered motivational speeches at Australia, Indonesia, US, UK and Singapore. His book 'Success in Five Steps' holds an all-time record in Telugu literature, surpassing sales of more than two crore rupees.

He is a practicing chartered accountant at Hyderabad.



“Mom. What is wisdom?” a girl asked. Her mother showed a jar in the kitchen and queried whether she would eat a cup of sugar from it. “No” said the girl. “How about eating few raw eggs or Maida?”

The girl was confused. Her mother continued: “But you love to eat the mixture of those ingredients, called ‘cake’. Same way, wisdom is the final product, ingredients being intelligence, knowledge, skill, logic, Reflex actions, Lateral thinking, Common sense, Rational thinking, Answering under tension, Presence of mind, Communication, Spontaneity, Art of listening, understanding and speaking. Individually they are not effective, but combined together, they formulate wisdom. Unfortunately no educational institution teaches them”.

Intelligence, fun and amusement:

“Mathematics is the poetry of logical ideas” said Newton. To solve a mathematical equation, first devise a plan. Draw the nearest and correct *route* to the answer. If you fail to reach the target, use other variables. This applies to management accounts, statistics, costing... and life also.

‘Wisdom’ mainly comprises of memory and intelligence. When a student solves a mathematical equation faster than others, he is normally said to be *intelligent*. When a student is good in history or biology, he is *industrious*.

Mastering maths involves three steps. Understanding the problem / Practice (solving innumerable types of problems) / Application (solving a particular problem in different ways).

I was a member in interview panels of some reputed organisations. Many intelligent candidates also used to be nervous. They were unable to answer simple questions due to negative cortisol, a neuro-transmitter that is released in the brain when you are nervous.

For a simple question like “Are you a bachelor or unmarried?” instead of answering ‘both’ (if he is so), the candidate said, “I am a bachelor”.

Many students fear maths. Once you understand the basic formulas and elementary theorems, mathematics is one of the most interesting subjects. Studying math is different from other subjects, as ‘study’ is of two types, *Active* and *Passive*. Mathematics is an active study. Whenever you are bored or feel sleepy, engage in mathematics. Unlike other subjects, each ‘step’ in maths is built on the *previous* lesson. For example, unless you are well versed with algebra, you don’t understand logarithms.

“If some people believe that mathematics is tough, it is only because they do not realise how complicated life is...” said the maths pundit, Ramanujam.

Reasoning' is the back-bone for life. Convert your life problem into simple mathematics. Failure to get the correct solution' teaches you how to look back to locate your mistake, amend your equations.

Other ingredients of wisdom:

For a question, "If one cat kills a rat in one minute, how much time does it take for two cats to kill two rats?" the boy said "Two minutes".

He is from a reputed institution that taught him rapid mathematics five hours a day. He is really good in multiplications and is able to multiply a four digit number with another three digit number within a minute. Without understanding what the boy is lacking, the proud parents claim that he is brilliant in maths.

Instead of blaming the child for securing low ranks, parents should trace out his phobias and deficiencies. The concept of 'education with entertainment' includes identifying the limitations of a child through *fun* and *amusement*.

"Our child is intelligent and was a topper earlier. But don't know what's happening now..." many parents complain. A child cannot be said to be intelligent, just because he scores good ranks. Up to school level, all students get good ranks, if they are simply industrious. As they grow the real intelligence comes out. It depends on parenting, peer influence etc. A student's wisdom tumbles to its low level due to 4 paucities.

1. *Paradigm shift deficiency:*

"A beggar's elder brother died. The person, who died, has no younger brother. How?" You need not worry if your child could not answer this question. Give him a tip like... 'All beggars need not be male'. If the child cannot answer *even then*, his paradigm shifting capacity (PSD) is at a lower plane.

2. *Sluggish Reflex Actions (SRA):*

When student is reluctant even to try to solve a question such as, "If yesterday is tomorrow, today is Monday. What is today?" his reflex actions are supposed to be sluggish.

Children with SRA live in their caves. They are not curious even to try. By encouraging them with rewards, parents can develop interest in logical thinking, enthusiasm and above all, willingness to accept a challenge.

3. *Problem Analysing Paucity (PAP):*

Some children are examination oriented. They cannot approach a improvised question, on 'identical' principle.

For a simple, when the child cannot answer "If $2a + 2b = 4$, what is $b + a$?", it is called PAP. PAP children would answer what is $(a + b)^2$ but cannot

respond to “What is $(b + a)^2$ ”. Students with PAP are advised not to choose subjects such as Engineering, Statistics, Accounts, Costing and Management.

4. *Hyperactivity:*

Ask your child to write from 100 to 0 downwards with a gap of 7 i.e. 100-93-86. It should not take more than two minutes depending on his/her age. If the child completes it within no-time, throws the paper on you and runs away, and if there are more than two mistakes, that is the symptom of Attention Deficiency and Hyper activeness.

...

Irrespective of whether you are a 5th standard student or a Post graduate in Mathematics, this book suits you. Solving puzzles in this book reduces over-confidence, and develops wisdom. It quickens reflex actions and eases tension.

Here are 300 puzzles. Give one puzzle every day and ask your student (or child) to work on it. Some of these questions test the capacity to hold your nerve under pressure. Don't feel dismayed even if you are not able to answer some of them.

Optimism knows what the 'tips' are, but success knows where the 'pits' are. Know the pits first. This book shows your deficiencies, and encourages locating your sphere of weakness. Tease your friends with these questions. Request your parents to ask you these riddles and win a bet for correct answer.

And finally... Many of these puzzles are from internet and are not my own. I modified many of them to nativity, included additional explanations for complicated questions, and added some of my own. My intention is to pool all varieties of puzzles, categorise them into groups and present them to the students. I also included few cine-artists and cricketers names to make it more interesting.

I thank Ms Prasanna Vanamala, Uday Srinivasula for assisting me to finalise this book

- Author.

*A **Riddle** is*

*Anything that arouses curiosity or perplexes
because it is unexplained, inexplicable, or secret.*

*A **Puzzle** is*

*A game, Or problem
that requires ingenuity and often persistence in solving or
assembling.*

*A **Brain teaser** is*

*A form of puzzle that involves a lot of thinking
(Lateral/mental/cognitive activity).*

*A **Conundrum** is*

A paradoxical, insoluble, or difficult problem; a dilemma.

RIB-TICKLING FUNNY PUZZLES

- 1) It was 2 o'clock in the night and was drizzling after a heavy rain. The street lights were reflecting on the wet-road. Except the sound of rain drops, everything was silent.

We both got down from the vehicle. I looked at the house and the compound wall gate. I know that the gate was not locked. Without making the lowliest noise, we reached the main door through the compound wall. We know there were no dogs.

I looked at my partner, who is good in opening the doors without sound. I silently stood watching the operation. Within a minute we were inside.

As we stepped two feet into the main hall, the main door behind us made a creaking sound due to the gallows outside. My heart came to my mouth. My partner looked sharply towards me for not taking care of it. I silently, but quickly moved back and closed the door. We both know that for any small disturbance there is a danger of people waking up. Once it happens we are finished.

We went towards the bed room. There were two people on the bed in deep sleep, one positioning his leg on the other. There was snoring sound of an old lady from the other room.

The huge Godrej almirah was by the side of bathroom door.

I was watching the people on the bed. One of them turned towards the other.

Suddenly there was a big sound. The alarm...!

I almost jumped and switched it off. Unmindful of what's happening, my partner was able to open the almirah without sound. There were at least more than hundred costly saris and dresses. Underneath them was the money bag.

I took it and ran out. The vehicle was outside.

My partner did not follow me. As the rain was heavier now, I drenched. After giving cash to the person in the vehicle, I ran back towards the main door. Can you tell what's happening?



- 2) My childhood classmate, who accidentally bumped into me at a railway station after ten years “You changed a lot”

I smiled.

“I came to know that you lost your eyes while working in a lab” there was sympathy in my friend’s voice.

“Yes Ram. I lost my eyes in an accident while working with some acids at my factory” I said. And to change the subject, “Got married?” I asked.

“Yes. After I went to U.S, it was a secret wedding. I could not inform anyone including you. Sorry for that. This is my daughter.”

A small hand touched me. I took into mine and asked, “What’s your name baby?”

“First three letters are same as my mummy... Last two are Y- A” answered the mischievous girl.

“Oh... Ramya... How are you?” I said.

How did I know? It could be any name like Kavya, Sreya, Sriya ending with ‘y...a’. Her name was written nowhere. Even if it is there, I can’t read. I am blind.

Tell me. How could I know?

- 3) How can you make seven even? Give two methods.
- 4) We require 12 one-rupee notes to make one dozen. How many ten rupee notes do we require to make ten dozen?
- 5) If A1 is A; A2 is B; A3 is C; and B1 is B; B2 is C; what is: H2 J3N2P7A5 L2B4.
- 6) If ‘blue’ is called ‘black’, ‘black’ is called ‘green’, ‘green’ is ‘white’, ‘white’ is ‘red’, ‘red’ is ‘yellow’ and ‘yellow’ is called ‘grey’, then what is the colour of milk?
a. White b. Blue c. Red d. Yellow e. Grey.
- 7) What is the next number in the series 10, 11, 12? Can you give at least two alternatives?
- 8) What is the number next in this series: 479126, 62974, 4796, 697
- 9) If 2 peacocks lay 2 eggs in 2 days, how many peacocks will lay 4 eggs in 4 days?

- 10) A farmer has 7 grey hens and 5 yellow hens. How many hens can say that there is at least one other hen with same colour?
- 11) How can you jump from the top of a 100-foot ladder onto a concrete floor without getting hurt?

- 12) "Can you draw a rectangle with 17 lines and 2 circles?" a girl asked Salman.

"No" said Khan.

"If you agree to marry me, I will show you" she said.

Enthusiastic Salman accepted the challenge.

After a month they married. How could she do it?



- 13) There are three houses in your street. One is red, another is blue, and third is white. Red house is to the left of the middle and the blue is to the right to the house in the middle. Where is the white house?
- 14) Rao Ramesh allows children to have a free chocolate from his shop in exchange for every five wrappers. Children from a locality pooled up 77 chocolate wrappers. How many chocolates do they get?
- 15) A customer bought a parrot, with a sign-board *"This bird repeats whatever it hears"*.

He spoke for two weeks, but it didn't utter a single word. He tried to return but the shopkeeper had not accepted the bird saying that the sign-board is correct.

The consumer court also a verdict supporting the shopkeeper.

How can this be?

- 16) Through a window, a group watched a bird coming towards them. It came much nearer. They all died in few minutes. How and Why?
- 17) Around 30% students in my class generally give wrong answer to this question. Can you try? In a running race, if you overtake the person running second, which position would you be? First? Second? Or Third?
- 18) Where would you be in a running race, if you overtake the last?

19) Amitabh, Amir Khan, Hritik Roshan were at a Bus stop. Bored with the delay, energetic Hritik proposed they should go to the next stop to save journey time. Intelligent Amir said if they walked back to the previous stop, they could catch the bus early. There was no consensus as lazy Amitabh was unwilling to both proposals. One went up, another went down. Who would reach early?

20) What do you call a 'fish' without eye (I)?

21) If you remove 'one' from a word, only two letters remain. What is it?

22) Anushka (36-30-36) is 5'8" tall. She is not the actress shown in the picture. This girl works in a gym, named Size Zero Gym, established exclusively for trans-genders. She wears '8' size shoes. What do you think she weighs ?



23) '1 is alone, 2 is a company, and 3 is a crowd'.

Then what is 4 and 5?

24) A fishing-trawler owner Suneel and Doctor Pavan Kalyan are both in love with Sriya Ghoshal. When Suneel needs to go for a long trip of 10 days for fishing, he gave Sruthi Hassan ten apples. Why?

25) A principal summoned the parents of a child and complained about the boy's continued absence to the school. On being questioned by the parents, the child argued, "There is no time for me. Whenever time permitted, I attended the school" pleaded the boy.

"Can you clarify us more reasonably" said annoyed principal.

"Doctors say that a child must sleep for eight hours that is $\frac{1}{3}^{\text{rd}}$ of a day. So I sleep for 122 days in a year. The school remains closed for 52 weekends that is 104 days. Summer holidays are 60 days. My daily chores like food, bath, physical exercise, TV, spending time with siblings and parents etc. take 5 hours a day that is around 75 days, making the total to 361 days. Thus I am left with 4 days. Look at the attendance register sir. I attended the school for those 4 days". Parents and principal are mystified with this argument. How and where did the child mastermind with his mesmerising calculations?

26) Samanta inspired Ali "I lay flat on the floor



and if you successful jump over me without falling on me, I will act with you as a lead pair". If you fail, you shoul pay me a lakh". What do you suggest him? Accept or don't accept?

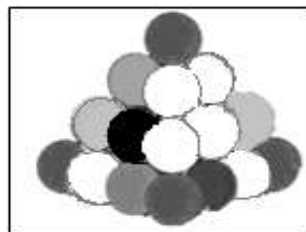
- 27) Balakrishna (not the actor as shown in the photograph) was a hefty person. He went for morning walk. It was raining heavily. He had neither an umbrella nor a rain-coat. His clothes were soaking with water, but not a single hair on his head got wet. Why and How?



- 28) Brahmanandam and Ali were going for a morning walk at twelve in the noon, their usual wake up time. It was rainy season but they did not take umbrella with them. Ali drenched completely, but Brahmanandam was not. How?



- 29) If it takes 3 seconds to take an egg from this bunch and keep in the fridge (one at a time), how much time does it take to keep all of them in the fridge? This is a simple mathematical question. Count the eggs and tell us the time.



- 30) The hour and minute hands are at equal distance after 6 P.M. What time will it be exactly?

-000-

ANSWERS

- 1) On that rainy night, my wife and I __went to a late night movie, keeping our kids under my mother's care. We did not have change to pay to the taxi driver. We took cash without disturbing the kids and my mother from their sleep.
- 2) My friend's name is Ramalaxmi. That's why I pronounced 'Ram'.
- 3) Add 'one' to it. becomes eight, an even number. Or Remove the letter 's' from 'seven' to make it 'even'.
- 4) If you say '24', you are in a hurry to answer. No. it is 120 (ten dozen).
- 5) I LOVE ME.
- 6) Red.
- 7) Of course the next is 13. It can be 1 also, as in the wall-clock.
- 8) This is a tough question. The answer is 79. The digits of the previous numbers are reversed. While doing so the lowest digit in the new formation is omitted.
- 9) Pea-cocks don't lay eggs. It's pea-hens' job.
- 10) Hens can't talk.
- 11) By keeping the ladder flat.
- 12) She drew a rectangle and then 17 beautiful lines and two circles "in it". Thrilled by her art and intelligence, Salman married her.



- 13) In your street. Or in USA.
- 14) For 75 wrappers they get 15 chocolates. For 15 wrappers they get 3 again. They have already 2 with them. For those 3+2 they again get one. Total $15 + 3 + 1 = 1$.
- 15) The parrot was deaf. If it hears, may be it could have repeated the words. The court also was convinced with this argument.
- 16) They were travelling in an airbus. They saw the bird get sucked into the engine and the plane crashed by the bird-hit.

- 17) Many people misjudge the answer. When you overtake the second, you will in that position. Second.
- 18) You cannot overtake the 'last', as you are last.
- 19) All would reach home at the same time by same bus.
- 20) FSH.
- 21) STONE. Remove 'one' you are left with ST, just two alphabets.
- 22) She weighs customers and suggests diet.
- 23) Nine.
- 24) An apple a day keeps the doctor away. The lover wanted his rival Dr. Pavan Kalyan away from his girl friend.
- 25) He is confusing the audience by mixing school-hours with daily-chores. He is accounting separately his personal time even in the holidays. For example the weekend holidays are included in summer holidays.
- 26) Don't accept. if she lays by the side of a wall you can not jump over her.
- 27) He is bald or may be he is wearing a wig on his head while on his morning walk.
- 28) It was not raining. Ali was sweating due to heat.
- 29) Layer 1: $4 \times 4 = 16$
Layer 2: $3 \times 3 = 9$
Layer 3: $2 \times 2 = 4$ + top 1. Total 30 eggs. $1\frac{1}{2}$ minute.
- 30) Common sense says that the clock's big hand must be between 8 and 9, and small hand in the middle between 3 and 4. The minute hand makes 360° in an hour $\therefore 6^\circ$ per minute. Hour hand makes 30° ($360/12$) per hour $\therefore \frac{1}{2}^\circ$ per minute. Therefore, $(20-X)$ minutes corresponds to $6(20-X)^\circ$. And in X minutes the hour hand makes $X/2^\circ$. Thus, $X/2 = 6(20-X)$ gives $X = 18$ minutes 27 and $9/13$ second. So, the answer is 8 hour, 18 minutes, $27 \frac{9}{13}$ second.



HYPER-ACTIVITY TEST

- 1) There are few chickens and Rabbits in a cage. The count of their heads is 72 and feet is 200. Don't ask how can chicks and rabbits can stay together in a 'cage'. The question is... how many are they?



- 2) This is more exasperating puzzle. In a group, the sheep are double in number than the chicken. Their heads + legs are 121. How many chickens are there?
- 3) There are 6 oranges in a basket and you took two from it. How many remain with you?
- 4) There are 6 oranges in a basket. If you take 3 and give one to your friend from it, how many are there in the basket?
- 5) There are 6 oranges in a basket. If you take 3 and give one to your friend from them, how many are there in the basket?
- 6) If one orange and two apples cost 5 rupees, and one apple and two oranges cost 4 rupees, then how much does two oranges and one apple cost?
- 7) The cost of one apple and one orange is two rupees. What is the cost of two oranges and one apple?
- 8) 'Can you solve the question'? Say yes or no. If the cost of 1 orange + 1 apple is one rupee, how much do 2 apples and 2 oranges cost?
- 9) If 4 persons eat 4 kilos of rice in 4 days, how many kilos does a person eat in 1 day?
- 10) A person can live for a month without food. Without water how many day can he survive?

- 11) If 8 people eat 8 kilos of rice in 8 days, how many kilos 2 people eat in 2 days?
- 12) If 5 people dig a 5 meters hole in 5 hours, how many people are required to dig a 100 meters hole in 100 hours?
- 13) If two cats can kill two rats in two minutes, how much time will it take for one thousand cats to kill one thousand rats?
- 14) If two cats can kill two rats in two minutes, how much time will it take for one cat to kill one rat?
- 15) If two cats can kill two rats in two minutes, how much time will it take for one cat to kill two rats?
- 16) Of 5, 6, 7, 8, 10, 13, Which numbers can equally be divided by 2?
- 17) A dog can run 50 miles in a day. How far could he run straight into a 900 square mile forest in two days?
- 18) Some months have 30 days. Some have 31. How many months do have 28 days in a year?
- 19) How many sheep must I have if I have two sheep before a sheep, two sheep after a sheep and one in the middle?
- 20) How can you remove one from 19 and make it 20?
- 21) How many times can you subtract 2 from 19, till you get a negative (minus) figure?
- 22) How many times can you subtract 2 from 19?
- 23) What is $2 + 2 \div 2$?
- 24) If a person does $\frac{1}{4}$ th work in 6 days, in how many days can he complete the remaining work?
- 25) Divide 20 by half ($\frac{1}{2}$) and add 5. What is the total?
- 26) What is a plus b minus a plus b?
- 27) This is a simple problem: If $1=5$; $2=25$; $3=125$; $4=625$; $5=?$
- 28) What mathematical symbol can be placed between 5 and 9, to get a number greater than 5 and smaller than 9?
- 29) $XI + I = X$. Can you correct the equation without pen or pencil?
- 30) $XI + I = X$. Can you correct the equation without pen, rubber or pencil?
- 31) More complicated question: A computer screen shows $XI + I = X$. Can you correct it without touching the key-board?

- 32) I have in my purse two notes amounting to 550 rupees. One is not a fifty note. How can this be possible?
- 33) Add 40 to 1000. Then add another 1000. Now add 30, and another 1000. Now add 20 to it. And add another 1000. Now add 10. What is the total?
- 34) What is $\sqrt{9\%}$?
- 35) You know that $\sqrt{1} = 1$
 And $\sqrt{121} = 11$
 And also $\sqrt{12321} = 111$. Now tell me....
 What is $\sqrt{12345678987654321}$
- 36) You are asked to fill the gaps with appropriate symbols like addition (+), multiplication (x), subtraction (-), square-root etc. and make the following statements correct. Here are two examples.

$$2 (?) 2 (?) 2 = 6.$$

$$3 (?) 3 (?) 3 = 3.$$

The answer is: $2 + 2 + 2 = 6$; and $3 - 3 + 3 = 3$.

Taking this as example fill the following gaps

$$3 \dots 3 \dots 3 = 6$$

$$4 \dots 4 \dots 4 = 6$$

$$5 \dots 5 \dots 5 = 6$$

$$7 \dots 7 \dots 7 = 6$$

- 37) After his death, a person went to heaven. People were wandering naked without inhibitions. He noticed first generation couple, went and wished them, "Hi Adam. Hallo Eve"

How could he recognise them?

Don't think of apple etc. There is a more reasonable answer.



ANSWERS

- 1) Don't do too many calculations. The answer is in the question itself. They are 72 according to their head count.
- 2) Let S be the number of Sheep and C the Chickens. Chicks are double in number.
 So $C = 2S$(1).
 Sheep has one head and four legs (5), chicken has one head and two legs (3) and hence $5S + 3C = 121$(2).
 Replace (1) in (2). $5S + 6S = 121$.
 $11S = 121$.: $S = 11$. There are 11 sheep and 22 chicken are there. Total heads: 33. Total legs: 88. Grand total: 121.
- 3) 2 oranges would 'remain' with you.
- 4) As you took 3 and gave one to your friend from the basket there would be 2 in the basket.
- 5) You gave one to your friend from 'your' collection and not from the basket. Hence there would be 3 oranges in the basket.
- 6) Don't confuse. Study carefully and you find the answer in the question itself (4 rupees).
- 7) Unless we know individual cost of each fruit, impossible to answer.
- 8) 'Can you solve the question?' is the question. "Yes." is the answer. "2 rupees" also correct, but the former is a better choice..
- 9) $1/4^{\text{th}}$ kilo.
- 10) Around seven days genuinely. Otherwise till satyagraha ends.
- 11) $1/2$ kilo. 8 people eat 8 kilos in 8 days. It means, one person eats one kilo in 8 days i.e., $1/8^{\text{th}}$ in 1 day. $1/4^{\text{th}}$ in two days. Hence two people eat $1/2$ kilo in 2 days.
- 12) 5 people.
- 13) Two minutes. If a marriage takes 3 hours between a boy and a girl, same time is spent even for thousand marriages at a time.
- 14) Two minutes.
- 15) Four minutes.
- 16) All the numbers can equally be divided by 2. For example, two divides 5 equally into $2\frac{1}{2}$ and $2\frac{1}{2}$..

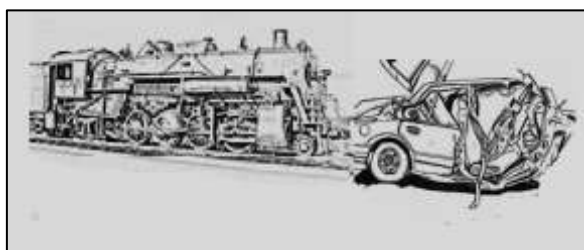
- 17) The forest area is 30x30 miles The dog enters into the forest up to 30 miles only. After that, it would be running 'out of the forest'.
- 18) All months have 28 or more days.
- 19) Three.
- 20) Remove I from XIX (nineteen). It becomes XX (twenty).
- 21) Ten times.
- 22) Only once. After that it would become 17.
- 23) The answer is not 2. No. Do you remember BODMAS principle?
B: Bracket / Orders (i.e. Powers and Square Roots etc.) / Division / Multiplication / Addition and Subtraction. Division are first, additions and subtraction next. Hence $2 + (2 / 2) = 3$.
- 24) If he completes $1/4^{\text{th}}$ work in 6 days, it takes 18 days for him to complete the remaining $3 / 4^{\text{th}}$ work.
- 25) If you answer is 15. No. Sorry. $20/2$ is 10. But $20 \div \frac{1}{2}$ is 40. Add 5 to it. The correct answer is 45. Did you get the same? Congrats.
- 26) 2b. $(a + b - a + b)$.
- 27) 3125. more logical answer is One, as given in the question itself.
- 28) A dot in between 5 and 9 (5.9).
- 29) Wipe of '1' with rubber.
- 30) Turn the paper. It would become $X = I + IX$
- 31) Topsy-turvy (up side down) the computer.
- 32) One is Five hundred and the 'other note' is Fifty.
- 33) 4,100. Not 5,000 as some hyperactive people assume.
- 34) 30%. Surprising? Calculate. $\sqrt{9\%} = \sqrt{9 / 100} = 3 / 10$. That is 30%.
- 35) 111111111. $(111111111 \times 111111111 = 12345678987654321)$.
- 36) a) $3 \times 3 - 3 = 6$.
b) $\sqrt{4} + \sqrt{4} + \sqrt{4} = 6$.
c) $(5 \div 5) + 5 = 6$.
d) $7 - (7 \div 7) = 6$.
- 37) Being created by God, they don't have naval or cord or scar on their belly. That's how they are being recognised as Adam and Eve.

HYPER-ACTIVITY TEST (OTHER THAN MATHS)

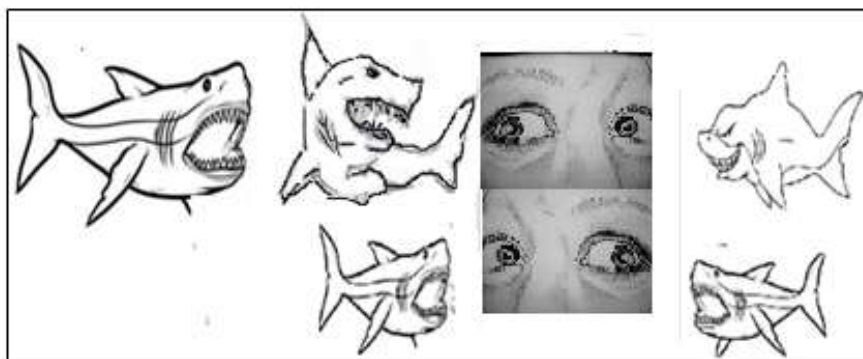
- 1) What is the last thing you lift up before going to Bed?
- 2) Rama's father had three children: One is Laxman. Other is Bharath. What is the name of the last one? Rama / Satrugna.
- 3) Taagubotu Ramesh was driving the car exactly in the right-angle direction of a train. Both were at the same speed and met at the same spot.

There was no gate-man.

Next minute the car was on the top of the train. But fortunately nobody died. How?



- 4) What is the value of (M-A) (M-B) (M-C)..... (M-Z)?
- 5) Rajanikanth had 5007 sheep and he donated all but seven. How many did he have left with?
- 6) If the President dies, who would be the vice-president?
- 7) WHAT AM I?
- 8) If a Mummy Bull, Daddy Bull, and Baby Bull are in the field and Baby Bull gets scared. Whom would he run to?
- 9) During which month do people sleep the least?
- 10) An electric train is travelling northwest at 95 miles per hour and the wind is blowing southwest at 95 miles per hour. In which direction does the smoke blow?
- 11) What is there between Earth and Heaven?
- 12) You have lost your mother at the carnival. You search for her and eventually you see her. What's the first thing you do?
- 13) Imagine that you are in a sinking boat and the boat is surrounded by sharks. How will you escape?



- 14) Forward it is heavy. Backward it is 'not'. What is it?
- 15) Why is it against the law for an Indian national living in Pak to be buried in India?
- 16) You don't expect more simple question than this. How long did the 'Hundred Years' War last?
- 17) Easier question than the previous one. From which animal is a Camel hairbrush made of? Camel / goat / pony.
- 18) Can you add 'one' to 'g' and let it go and vanish?
- 19) Dr. Allu Ramalingaiah prescribes 3 pills and advises you to take one every half hour. How long would the pills last?
- 20) You may be a mega-star or a super duper star, male or female, but can not tell the truth sometimes, particularly with your spouse. Give an example of at-least one question that you can never truly answer "Yes". The answer is very simple. Think a while, and you will certainly get.
- 21) A girl was born before her mother. How can this be possible?
- 22) How many words can a quill write with the feather of a pigeon with a 100ml bottle of black ink?
- 23) While Tanikella Bharani was driving on a nasty road, got a doubt, got down, checked and found that one of the tyres is flat. There was no repair shop. He continued for another fifteen miles. How did he travel such a long distance on a nasty road with a flat tyre.?
- 24) Which is correct? Six nines 'are' fifty six or Six nines 'is' fifty six?
- 25) Venu Madhav went to a carnival in disguise, to avoid people. His assessment resulted favourably. Nobody noticed him. While wandering, he was astonished to see a booth and the board outside. THE MIRACLE TRUTH. He went inside and enquired, what the booth is for.



"Well," said the man, "Just close your eyes. Without a single word from you, I can write 'your name' on this paper. If I get it right, you pay me. If I am wrong, I pay you double the amount than what you pay me."

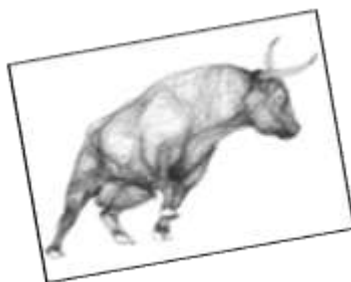
Venu Madhav (who is in disguise like a woman) was jubilant that he had a chance of winning big money by making the fortune-teller a fool. He agrees and pays ten thousand rupees.

The man writes, gives the paper and gets 10,000 rupees. How?

- 26) Allu Arjun bets that he would lift an elephant with one hand. You challenge him and bring an elephant. You lost and paid him. Why?
This requires more common sense than mathematical brain. How do you share 34 apples among 33 people equally?
- 27) Name the daughter of the mother in law of the Father of the nation?
- 28) There is a box which have 33 yellow and 35 green marbles. You also have 34 green marbles outside. Randomly remove two marbles from the box. If they are of *different* colors, put the yellow one back into the box. If they are the same color, take them out and put one green marble back in the box. Repeat this until only one marble remains in the box. What is the color of the sole marble left in the box?
- 29) What number gives same result, when multiplied or added by $1\frac{1}{2}$?
- 30) What is the number that gives the same result when added to 5 and multiplied by 5? Alternatively, if $5x = x + 5$, what is x ?
- 31) What is the chance (probability) of your meeting a person in your lifetime, who is having an above average number of arms? Choose your answer from the following: Impossible / Unlikely / Certain.
- 32) Where are the ashes of Dr. Eugene Shoemaker, who trained Astronauts?

ANSWERS

- 1) Legs.
- 2) Rama. (because his father had only three sons *including* Rama).
- 3) The car is on the rail over-bridge.
- 4) Zero. ($M-M = 0$).
- 5) Seven sheep. He donated ALL but 7.
- 6) The person who died is the President and not the Vice President. Hence the present vice-president would continue to be the vice-President. In some countries only he automatically elevated to the superior post. Or he may be 'acting president' also.
- 7) A QUESTION.
- 8) There is no 'female bull' in the world.



- 9) February. It's the shortest month after all.
- 10) No smoke emanates for electrical trains.
- 11) 'And'.
- 12) Stop searching.
- 13) Stop imagining.
- 14) TON. Backwards it is NOT.
- 15) Lay to rest a living person is against law in any burial ground in any country.
- 16) 116 years.
- 17) Goat and pony. Camel is the name of the person who invented camel brush.
- 18) Add 'G' to one. G...one. See. Its gone.
- 19) One hour. Not $1\frac{1}{2}$ hour as some students hurry to say. If first tablet is at 9 a.m., second is at 9.30 and third is at 10. A.m. One hour.

- 20) Are you sleeping?
- 21) Nothing surprising. Every baby is born in front of her mother only.
- 22) A quill cannot write a single word. Only humans write.
- 23) It was a spare tyre in the car dikky. .
- 24) Both are wrong. Six nines is fifty four..
- 25) The person just wrote 'your name' on the paper and took the money from Venu Madhav.
- 26) You brought an elephant. But it has no hands. Don't you remember Arjun told you to bring an elephant 'with one hand'? For that matter, do elephants have hands?
- 27) By making apple-sauce ☺.
- 28) Daughter of mother-in-law is 'wife'. Father of the Nation is Mahatma Gandhi. His wife.... Kasturba Gandhi.
- 29) The last marble will be yellow. Did you understand the logic? We are replacing green with green. More over, we are dropping down the yellow, when we get different combinations. A stage would come, where the last 3 will be 2 green and 1 yellow. We will be dropping down yellow again, till we get 2 green in our pick. Hence the last marble will be certainly yellow.
- 30) A number, either multiplied or added by $1\frac{1}{2}$ should give us the same result. This can be represented as $(\frac{3}{2}x) = (\frac{3}{2} + x)$.
 $\frac{3}{2}x - x = \frac{3}{2}$.
 $X = 3$. Cross check. Whether 3 is added to, or multiplied by $1\frac{1}{2}$, gives the same result ($4\frac{1}{2}$).
- 31) If the number is X, the equation is $X + 5 = 5X$. Simplify it. $4X = 5$ or if you further simplify it, $X = \frac{5}{4}$.
 Cross check it. $(\frac{5}{4} + 5) = \frac{25}{4}$ $(5 \times \frac{5}{4}) = \frac{25}{4}$.
- 32) The probability is 'certain'. We know that the *average number* of arms in this *accident-prone* world is surely less than 2.
- 33) On the moon. He is the only person whose ashes have been buried on any celestial body outside Earth.



SIMPLE MATHEMATICAL REFLEXES

- 1) One typist does a job in 2 hours and another in 3 hours. If they were to type together, in what ratio they must share to complete the work in *minimum* time?
- 2) 10 men and 10 women complete the job in 4 days. 5 men and 10 women complete the same job in 8 days. How much time does it take for 20 women to complete the job?
- 3) Take 1 to 9 and create 100 by adding or subtracting them, *without changing the order*. It can be worked out as: $123-45-67+89$. Now create 10 in the same fashion.
- 4) This is simple 8th class question. Price of an article goes up by 10% and later comes down by 10%. When is the price at a lower level? A. Before the raise? B. After the fall? C. Equal to original?
- 5) A fish is 15 inches long, comprising of head, middle portion and tail. Its head is as long as its tail. If the head is twice as long as it really is, the head and tail would together be as long as its middle portion. How long is each part of the fish?
- 6) You have 1023 lemons and 10 empty bags. You are asked to allocate these lemons in 10 bags in any way you choose. But when I ask for a certain number of lemons, you have to give them in terms of bags without transferring the lemons from other bags. How do you distribute the lemons in each bag?
- 7) If you get 'x' number of lemons for 16 rupees; and 36 lemons for 'x' rupees, what is the value of 'x'?
- 8) This is management accounting problem. Mathematicians believe that it is their problem. No problem. Go ahead. It's our problem. A man went into a fast food restaurant and ate a meal costing 100 rupees, gave the cashier a 500/- note and took the change. He had some Tiffin packed and gave 100 rupee note and received 20/- in change. Later the cashier found that both the notes are counterfeit. How much money did the restaurant lose if the restaurant's profit on food and Tiffin is equal to its cost?
- 9) Krishna and Radha are playing cards for one rupee per game. At



the end Krishna has won 3 games and Radha has won 3 rupees.
How many games did they play?

- 10) A person created a rumour that his neighbour transformed into a transgender. He passed it on to four persons in 30 minutes. Each in turn passed it to another four in next 30 minutes and so on. Assuming that nobody heard it more than once; and the population of the world is approximately 5,600,000,000 (5.6 billion), how long would it take for everybody in the World to get to know the rumour? Choose among these four: 8 hours / 80 hours / 80 days / 8 months.



- 11) A man died, leaving 10,00,000 for his widow, 5 sons and 4 daughters. Each daughter received an equal amount, each son received twice as much as a daughter, and the widow received three times as much as a son. How much did the widow receive?
- 12) Find out the value of A and B in the following equation:
 $\frac{1}{20} + \frac{1}{30} + \frac{1}{50} = \frac{1}{2} \times \frac{1}{3} \times \frac{1}{5} \times \frac{A}{B}$.
- 13) If you are given a statement that $A+A= A \times A$, and asked to find out the value of 'A', obviously $A=2$ ($2 + 2 = 2 \times 2$).

Find out the different values of a, b, c, if $a+ b+ c = a \times b \times c$.

- 14) In the following sum, A, B, and C representing different digits.

$$\begin{array}{r}
 A \ B \\
 A \ B \\
 B \ A \\
 \hline
 C \ A \ A
 \end{array}
 \quad \text{Find out what is } A+B+C?$$

- 15) Which weighs more, one litre of hot water or cold water ?
- 16) If a person accidentally goes into in a vacuum space, or thrown out of a spaceship, no doubt he dies. But how does he die?

Lack of oxygen/ wandering in space for sometime and due to dehydration / fear / Explosion?

ANSWERS

- 1) The first typist does $\frac{1}{2}$ job in one hour.

The second $\frac{1}{3}$.

Hence they should share the work in 3:2 ratio. Together they complete $\frac{5}{6}$ th ($\frac{1}{2} + \frac{1}{3}$) job in one hour. It takes 72 minutes for them to complete the job.

- 2) 5 men and 10 women do the job in 8 days. Double the equation..
10 men and 20 women do in 4 days. Or $\frac{1}{4}$ th work in a day.

10 Men + 20 Women = $\frac{1}{4}$ th work.....(a)

Second statement says 10 men and 5 women do $\frac{1}{4}$ th job.

10 Men + 5 Women = $\frac{1}{4}$ th work.....(b)

This is surprising. Men being same, whether the women are more or less, there is no effect on completion of the job. It shows that the work will never be completed with any number of women.



- 3) $12+3+4+5-6-7+8-9 = 10$. There are many other ways also. Try.
- 4) Suppose the original price is 100. it goes up to 110 (10% on 100), and comes down by 11 (10% On 110) making it 99. Hence the present price is lower than the original price.
- 5) It is a marginally complicated puzzle. Suppose the size of head is x inches, the tail would also be x inches.

Mid-body length is Tail + Twice the size of its head: $(x) + (2x) = 3x$.

Total length: Head (x) + Tail (x) and Body $(3x) = 5x$.

$5x = 15'' \therefore X = 3$ inches. Head, tail and body lengths are 3'', 3'', 9''.

- 6) Starting with 1 lemon in the first bag, each bag contains double the number of lemons as the previous bag. I.e. 1, 2, 4, 8, 16, 32, 64, 128, 256, 512. That way whatever number of lemons I would ask for, you would just add up the bags to equal the number I asked. Suppose I ask for 113, you would give $64 + 32 + 16 + 1$.
- 7) According to first statement, cost of each lemon is $16/X$ rupees.

Cost of 36 lemons is 36 (16/X).....(1)

According to second statement 36 lemons cost X rupees....(2).

Work out on both statements. $36 \times 16/X = X$. $\therefore X = \sqrt{576} = 24$.

You get 24 lemons for Rs. 16, and 36 lemons cost 24 rupees.

8) The hotelier lost 420 in cash, 50 in meal and 20 in tiffin. Total 510.

9) Total 9 games. Krishna won 3, lost 6.

Radha Lost 3, paid 3 rupees. Won 6 and gained 6 rupees..

She was left with a profit of 3 rupees.

10) In just 8 hours everybody in the World would come to know the scandal. Surprised?

When the rumour is passed on to four in 30 minutes, 4+1 persons know it in $\frac{1}{2}$ hour. In one hour 16 more persons and in 2 hours 340 (4+16+64+256) know about it.

From the equation, it can be construed that the series are multiplying the rate of 4. Considering that the sum of the series must be 5.6 billions, it would be 8 hours. Gossips travel really fast. Isn't it?

11) If you take daughter's share as x, sons' share would be 2x each; and wife's share 6x. 4 daughters (4x), Five sons (10 x), and wife (6x)... Total = 20 x.

$20x = 10,00,000$. $\therefore X$ (Wife's share) = 3,00,000 rupees.

12) $1/20 + 1/30 + 1/50 = 1/2 \times 1/3 \times 1/5 \times A/B$.

$31/300 = (31/30) \times (A/B)$.

$A/B = 31/300 \times 30/31 = 1/10$. $\therefore A = 1$. $B = 10$.

13) A,B,C are 1, 2, 3 respectively, as $1 + 2 + 3 = 1 \times 2 \times 3$

14) The right side digits of the numbers are B, B, and A. The right side digit of the total product is also A. Hence B should compulsorily be 5. A should be 1 less than B to get the said equation.

Hence A=4. B=5. C=1. Cross check: $45+45+54= 144$.

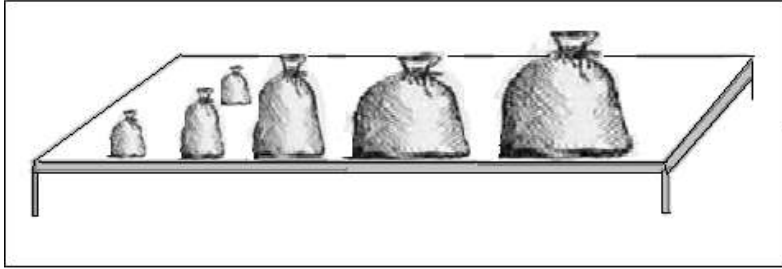
15) Surprisingly hot water.

16) Within a second, his body explodes into million pieces.

-o0o-

MARGINALLY COMPLICATED PUZZLES

- 1) The number of half-inches in 10 yards, or the number of half-seconds in 6 minutes... Which is bigger?
- 2) There are six bags, each containing 15, 18, 20, 16, 19, 31 apples respectively. One person purchased 2 bags and another 3. If the second person holds double the number of apples than the first person, what is the bag that is unsold?



- 3) What is the next number in 2, 4, 8 series? Of course it is 16. Can you give one more alternative number?
- 4) 25% can be written as $\frac{1}{4}$; 75% as $\frac{3}{4}$; and 33.3% as $\frac{3}{4}$. It's as simple as that. But how $58\frac{1}{3}\%$ can be written as a fraction?
- 5) A five-digit number AB3AB is divisible by 4 and 6. Given that $A = 2B$, find the five-digit number.
- 6) A tank has three different water taps. The smallest tap fills the tank in 20 minutes, middle one in 12 minutes and the biggest tap in 5 minutes. There is one more tap that empties the tank in 3 minutes. If four taps are opened how long does it take to fill the water tank?
- 7) If 30% of a x is 12.6 what is x?
- 8) In a row of 102 people, Ram is 3rd (మార్పు చూడండి) from left and Laxman is 2nd from right. How many people are in between them?



- 9) A merchant sells goods at cost price. But his balance machine

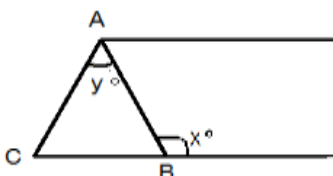
shows 800 grams as kilogram. What is his percentage of profit?

- 10) There is one number below 1000 that gives a remainder of 1 when divided by 2, 3, 4, 5, 6, 7 or 8. What is the number?

- 11) Solve this algebraically.

There are 4 two digit numbers. When you add 45 to those numbers, they reverse. For example take 16. $16+45=61$. Taking this as example, what are the other 3 numbers?

- 12) In the triangle below, if $y = 80$ degrees, what is angle x ?



- 13) The total cost of a silk sari and a blouse is 110/-.

Cost of the sari is 100 more than the blouse. Don't ask me to take you to the shop where they sell saris at such a cheap price. Answer this simple question. What is the cost of the blouse?

- 14) When this question was asked in a seminar for C.A aspirant students, only 40% could answer correctly. No surprise, C.A. pass results are 13%.

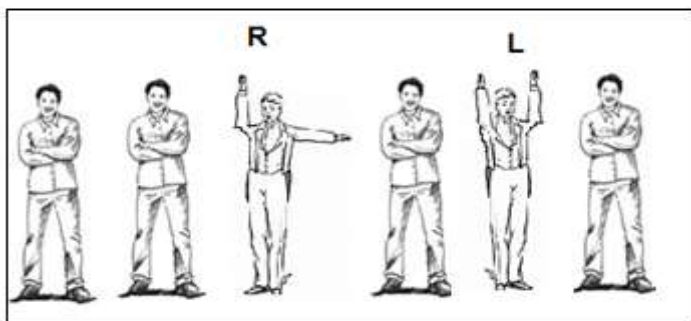


A man buys two horses for 2000 rupees. After six months, sells them for 3000. He buys the *same* horses for 4000 and sells them for 5000. Not taking into consideration IRR or interest on capital, what is his overall profit / loss?

- 15) Have you ever had an idea, on what formula do (smoke detectors function? How do they give a signal?

ANSWERS

- 1) One 'yard' is 3 feet or 36 inches. 10 yards = 360 inches / 720 half-inches. Half-seconds in 6 minutes is also 720 (6x60x2). Hence both are same.
- 2) Working out on algebraic calculations involves laborious process. Best way is to go for permutations and combinations. First person purchased first two bags (33 apples) and the second purchased the last three bags (66 apples). Bag containing 20 apples is unsold.
- 3) 14 (Difference between first and second number is 2, between second and third numbers is 4, and hence third can be 6.).
- 4) 50 is $\frac{1}{2}$; $8\frac{1}{3}$ is $\frac{1}{12}$. Hence $58\frac{1}{3}$ is $\frac{1}{2} + \frac{1}{12}$. That is $\frac{7}{12}$.
- 5) To be divided by 4, the last two digits any number should be one of the following: 04, 08, 12, 16, 20...etc.
Given the condition that $A = 2B$, it cannot be other than 84. Hence the number is 84384. Now check out whether 6 can divide the said number.
- 6) In 1 minute the small, middle and the large taps fill $\frac{1}{20}$, $\frac{1}{12}$ and $\frac{1}{5}$ tank respectively. Together they fill $\frac{1}{3}$. With them the water-cask is filled in 3 minutes. But bottom tap empties the tank in 3 minutes. Therefore the tank can never be filled up with four taps are in operation.
- 7) $12.6 \times 100/30 = 42$.
- 8) Don't make it too complicated. Suppose there are 6 people in a row, and Ram is 3rd in the row from left; Lakman is 2nd from right. How many people are there in between?



One. Isn't it? The calculation is $(6 - 3) - 2$. Apply the same principle.

$(102 - 2) - 3 = 97$. There are 97 people in between.

- 9) For every 800 grams he is getting 200 grams profit. Hence his percentage of profit is 25.
- 10) This appears to be a tough question but if you apply mathematical mind it becomes simple. Here is an example. What is the minimum number that gives remainder 1, when divided either by 3 or 7? 22.

What did you do? You multiplied both numbers and added 1. Isn't it? Do the same. Multiply all the numbers from 2 to 8. You get 40,320.

But according to the question, the figure should be less than 1000. As 6 and 8 are divisible by 2, 4 and 3 you can eliminate them. Multiply the remaining.

$2 \times 3 \times 4 \times 5 \times 7 = 840$. Add 1 to it to get a remainder of 1 = 841.

- 11) A two digit number gets reversed when 45 is added. This is the question. The equation is $(10x+y)+45=10y+x$.

Simplify it. $9y - 9x = 45$. Or $y-x = 5$. So the two digits numbers are 27/38/49. When 45 is added, *they* become 72/83/94.

- 12) 130 degrees.

- 13) Total cost of Sari and blouse is 110 and cost of sari is 100 rupees more than the blouse. The equation is: $S+B=110$; $S-B=100$. Add both.

$2S = 210$. $S=105$ and $B=5$.

The cost of the blouse is 5 rupees and sari is 105.

Do you think the correct answer is 10? No. If the Blouse cost is 10, then cost of sari should be 110 and total cost 120/- which does not go well with the question.



- 14) Total earnings: $3000 + 5000 = 8000$. Total expenditure: $2000 + 4000 = 6000$. Hence the profit is RS. 2000. Didn't understand? Ok. We will work out in a simple way. Suppose his capital is 3000 rupees. After first transaction he would be with $1000 + \text{two horses}$. After first sale, his cash balance is 4000, with which he again purchases and sells. He is now left with 5000 cash. Hence his profit is 2000.
- 15) The radioactive Americium – 241 detects smoke and gives signals.

CONFUSING BROTHERS AND BIRTHDAYS

- 1) How many birthdays have you celebrated so far?
- 2) Lava celebrated his birthday today, but his twin brother Kusa had not celebrated today or even next day. Why?
- 3) Lava celebrated his birthday, but why his younger twin Kusa, had not celebrated that day or even next day.?
- 4) Lava and Kusa are 'twins', born with 'six hours' difference. Today Kusa celebrated his birthday; but Lava would celebrate his birthday 'day after tomorrow'. How could this be possible?
- 5) Six hours after Krishna was born, his mother delivered his sister Subhadra. But Krishna celebrates his birthday one day after his 'younger' sister Subhadra. How? How an older brother does celebrate birthday one day after his younger sister? Don't argue that the baby conceived first in mother's womb is elder, but comes as second. We expect more logical answer. Don't waste your time with leap years, calendars etc. This requires more intelligent and logical thinking. Give two alternative answers.
- 6) Bheema is twice as old as Dharmaraja but twice younger than Sahadeva...! Arjuna is half the age of Dharmaraja but twice the age of Nakula. Who are the youngest and eldest among the five?
- 7) I have two sons. Each son has a sister. How many children do I have? (మార్పు చూడండి)
- 8) Today I am 8 and next year I will be running 11. How is this possible?
- 9) My birthday is in January. What is the least (minimum) number of 'yes/no' questions you need to ask me to guess the day of my birthday correctly?
- 10) Two boys, born on the same day of the same year to same mother are not 'twins'. How could this be so?
- 11) After two years, my son will be double his present age. After four years my sister's daughter's age will be three times of her present age. Who is elder among both?



- 12) A has three older sisters. B is 2 years older than A. C is 3 years older than B. D is 4 years older than C. D is twice as old as B. How old is A?
- 13) It is said that ladies never expose their age, particularly the heroines. Here is an example that confirms that no filmy person disclose the age. A lady reporter asked Vennela Kishore about his age. He replied: "Multiply my age after 3 years by 3, and then, multiply my age 3 years ago by 3. The difference is my age". What is his age?
- 14) There are 733 students in a school. Prove that at least 3 students have the same birthday.
- 15) A boy says, "If I take two years away from my age and gave them to you, you'd be twice my age." His sister added, "Why don't you just deduct and give me one more and I'll be three times you age." Who is elder among them?
- 16) Two twins, three triplets and four quadruplets, how many are they?
- 17) This is more complicated puzzle. I have equal number of brothers and sisters. My each sister has double the number of brothers than sisters. How many are we in total?
- 18) In a group of siblings, there are seven sisters, and each sister has one brother. How many are there in total?
- 19) The ages of Allu Arjun and Sirish are in the ratio of 4:3 respectively. After 4 years the ratio of their ages will be 5:4. What is the difference in years between their ages?
- 20) This is not about brothers or confusion with their ages. This problem is about men, whose wives are dead.
- A man whose wife is dead, is called widower. A widower can marry his wife's sister in almost every country in the world. But surprisingly for a question "...In Afghanistan can you marry your widow wife's sister?" the Law students who answered "No" passed and the others failed. How and why?
- 21) A small chick is crossing the highway in heavy traffic. Why? Give ten valid or stupid but humorous reasons of your choice...!
- 22) What is most intelligent animal on earth next to humans?



ANSWERS

- 1) Only one. All others are anniversaries.
- 2) He celebrated yesterday.
- 3) Lava was born on 28th Feb and Kusa on 29th. That being *not* a leap year, the younger brother has not celebrated his birthday.
- 4) The first boy was born on Feb. 28th and the second was born on March 1st. This being a leap year, Lava has to wait for one more day to celebrate his birthday.



- 5) This is a complicated question. At the time of delivery, their mother might have been travelling in a ship. After delivery of the boy, the boat crossed the international time zone and the younger sister was born on previous day according to the local calendar. This requires explanation.



In India, if it is morning 8, it would be still the previous day night 8 in U.S. This is the reason people adjust their watches while travelling abroad. *The International Date Line* is an imaginary line which runs from the North Pole to the South Pole and is 180° away from the Greenwich Meridian. Whoever crosses the said line, should change their calendar date one day + or -.

For more interesting details about Greenwich, browse the internet.

The second answer:

The siblings might have celebrated their birthdays at different parts of the globe, with more than 12 hours time difference. For example, one may be in India and the other in America.

- 6) This puzzle requires more patience than intelligence. Let us assume Dharma's age as x . Then, Bheema is $2x$.

Bheema is twice younger than Sahadeva. So, Sahadeva age is $4x$.

Arjuna is half the age of Dharma i.e. Arjuna is $x/2$.

Arjuna is twice the age of Nakula. It means Nakula age is $x/4$.

So, the descending order of ages is Sahadeva, Bheema,

Dharmaraja, Arjuna and Nakula. Sahadeva is the oldest and Nakula is the youngest. Complicated. Isn't it?

- 7) Three. Two boys and one girl.



- 8) Suppose I was born on 31 Dec 2000. On 30th December 2009, I am 8. On 31st I am 9. From that day, I will be running 10. On Dec 31st next year (2010), I will be 10. Running 11. (మార్పు చూడండి. ఒకే పేరాగ్రాఫు.)

- 9) Suppose my birthday is on 31st January. I were to be asked these questions: Does your birthday fall in first fortnight? (No)

Is it between 16th and 23 inclusive of both dates? (No)

Is it between 24th and 27th? (No)

Is it 28th or 29th?

Is it on 30th? (No).

Your birthday is on 31st. (Maximum 5 questions).

- 10) This puzzle stumps many people. They try outlandish solutions involving test-tube babies or surrogate mothers etc. Don't drain your brain with too much thinking. They are 'triplets', or may be 'quadruplets'.



- 11) "My son would be double his age after two years" means he is obviously 2 years old now ($2+2 = 4$).

"After four years my sister's daughter's age will be three times of her present age" means she is also of 2 years age ($2 + 4 = 6$).

Hence it is difficult to tell unless the date of births (or at least months) are known.

- 12) 5 years old. (Work out algebraically).

- 13) Suppose his present age of the comedian is x .
The equation is: $x = 3(x+3) - 3(x-3)$. Simplify it. $x = (3x + 9 - 3x + 9)$
The comedian's age is 18.
- 14) The maximum days in a year are 366 (leap). The students are 733.
Even if you consider that each student was born on different days of the year ($366 \times 2 = 732$), one student must have born on one of these 366 (మార్పు చూడండి) days, making it 3 students having born on the same day.
- 15) Consider boy's age as x , and the girl's age as y .
First statement says that if he donates 2 years to her, she will be 2 times more than him. The equation is: $2(x - 2) = y + 2$. $2x - 4 = y + 2$. Simplify it.
 $2x = y + 6$(1)
Second statement says that y will be three times more than x , if he gives 3 years of age to her. The equation is
 $3(x - 3) = y + 3$. $\therefore 3x - 9 = y + 3$. Simplify it.
 $3x = y + 12$(2)
By deducting (1) from (2) we get the value of x as 6.
The boy is 6 years old. We are asked to tell who is elder among them. Hence we have to find out the girl's age also.
We know that $3x = y + 12$. We also know that $x = 6$. Work out.
 $3(6) = y + 12$. $\therefore y = 6$. Surprisingly, the girl is also 6. Let us cross check. If he gives 2 years, he is 4 and she is 8. If he gives 3, he is 3 and she is 9. They must be twins or born in the same year. Hence we cannot answer this question, unless we know their date of birth, or at least the month of birth.
- 16) Many confuse as 29 ($4+9+16$). No. 9. Two twins means 2 people, three triplets are 3, and four quadruplets are 4. Total $2 + 3 + 4 = 9$.
- 17) Let number of boys be 'B' and the number of girls 'G'.
The first statement says that each boy has equal numbers of brothers and sisters: $B - 1 = G$
 $\therefore B - G = 1$(a).
The second statement says that each girl has twice as many brothers as that of sisters: $B = 2(G - 1)$.
Simplify it. $2G - B = 2$(b).
By resolving (a) and (b), we get $G = 3$ and $B = 4$. Boys are 4 and the girls are 3. Each girl has 2 sisters and 4 Brothers. Each boy has 3 brothers and 3 sisters.
- 18) Total 8. Seven sisters and one brother.
- 19) If we assume the age of Arjun as $4x$, Sirish age would be $3x$.
After 4 years, the ratio is 5:4 means $4(4x + 4) = 5(3x + 4)$.

$$16x + 16 = 15x + 20. \therefore x = 4.$$

Arjun age is 16 and Sirish is 12.

After 4 years they would be 20 and 16 (5:4). Too young to be heroes.

- 20) A lady becomes widow, when her husband dies. How can a widow's husband (dead man) marry any lady, leave alone his wife's sister?



- 21) Here are ten reasons.

1. It already crossed the road 999 times and wanted to make it 1000.
2. It wanted to see the other side of the road.
3. It was confused which way to go.
4. The chicken wanted to learn about his family history, and was trying to find its roots.
5. It was daydreaming and did not notice that is crossing a road.
6. The chicken was looking for love on the other side of the road.
7. All the other chickens crossed the road, so naturally this one didn't want to appear anti-social and oddly different.
8. The other chickens told it to go away from them.
9. The chicken wanted to know the Darwin theory, which came first, chicken or the egg? It crossed the road to get to the library.
10. It was a nice spring day, and the visibility was good.

Try for another 2 reasons at least.

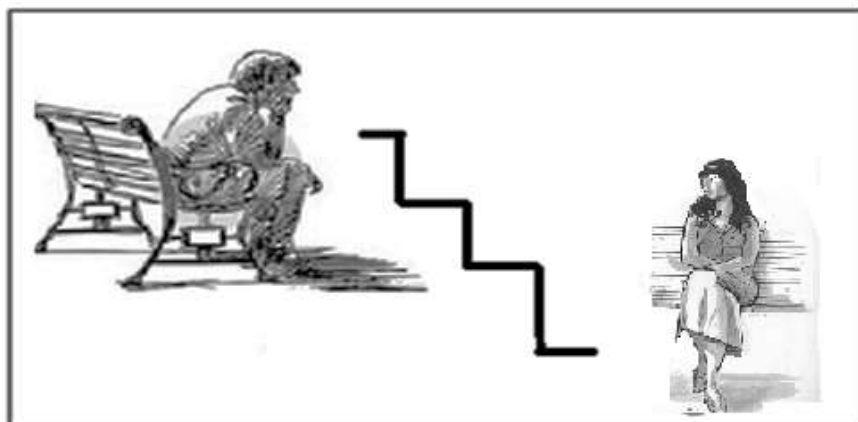
- 22) Porpoise fish



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TIME MANAGEMENT

- 1) A young bachelor stays on the top floor of a flat. He has the following things to do before going to office: yoga / heating water with geyser / bath / coffee preparation / dress / cooking / wearing shoes / lift. Each task take 10 minutes, total 80 minutes. Journey to office: another 40 minutes. Total: 2 hours.



Due to obvious reasons he cannot start any of the above works before 7 in the morning. Hence he reaches office at 9.00, late by half-an-hour, as his office is at 8.30 a.m.

He can manage it, but here is a bigger worry. His fiancée stays in the ground floor and he cannot go to his work without seeing / talking to her at least for a few minutes in the morning. He doesn't like to see her before his bath.

She leaves for her office in the opposite direction at 8 o'clock. Can you suggest him how to manage his time?

2)



- 2) You are given two candles of equal size which burns for 1 hour each. You have to measure exactly 90 minutes (There. (is no scale or clock. You are supposed to calculate with the help of these two candles only). How do you do? Don't say, "I will lit them first. Give a solution based on mathematical calculations and time



management.

- 3) At 1:00 A.M when a student is reading for his examinations the lights go off. He illuminates two uniform candles of *equal length* but one is thicker than the other. The thick candle is supposed to last 6 hours and the thinner one for 4 hours. When he finally goes to sleep, the length of the thick candle is *twice longer* than the thin one. For how long does the student study in candle light?
- 4) This is one of the best questions that I came across with regard to time management. The five pandavas: Dharma, Bheema, Arjuna, Nakula and Sahadeva were sleeping in a tent and their enemies burnt it. The pandavas were to escape through a tunnel. Only two people could go through the tunnel at one time, moving with the speed of the 'slower' one.

It was absolutely dark and without a torch they could not proceed. They had only one torch. It means, two people should go out, and then one had to take the lamp inside and accompany another one out. Total 4 trips.

It would take for Nakula and Sahadeva 5 minutes each, Arjuna 10, hefty Bheema and aged Dharma 20 and 25 minutes respectively to walk through the tunnel and come out. This is an arithmetical problem and has no twists. How much minimum time it would take for all the five to come out?



- 5) In the above question, If Nakula takes the responsibility of bringing all the other four, it would take 75 minutes (If this is what you worked out in previous question). Suppose the tent is going to collapse exactly in 65 minutes and they have to escape within the said time, can you suggest them any alternative way?

There is a way to make it in 60 minutes. Think.

- 6) Golkonda Express from Hyderabad at 60 miles per hour and Krishna Express from Vijayawada at 70 miles per hour started at the same time and met in between. Which train is nearer to Vijayawada? Golkonda/ Krishna/ Both.
- 7) Desert express starts at 8 a.m. in Afghanistan and proceeds to Kabul at 80 miles/hour. Toofan mail starts from Kabul at 60 mph in the opposite direction at 9 a.m. When they meet, which train will be nearer to Kabul, if the distance between stations is 480 miles?
- 8) The number of hours since 12 midnight is, two times the number of hours before 12 noon. What time is it?
- 9) It is unfortunate that the present generation of students do not know about Mathematic wizard Sakuntala Devi. Here is an interesting question believed to be set by Sakuntala Devi. If a clock takes two seconds to strike two bells, how much time does it take to strike three bells?
- 10) If a clock takes 5 seconds to strike 5 pm, how long it take to strike 10 pm?
- 11) At 6 P.M., the time between first and last bell-ticks is 30 seconds. How long does it tick at 12 o' clock?
- 12) Based on the above, here is a difficult one. What time is it when the number of minutes since midnight... is nine times the number of minutes before noon?
- 13) My son asked me, 'It is 9 pm now. Can you tell me what will be the time after 23,000,997 hours later?'



"6 pm" I said swiftly.

How could I tell him so quickly? Am I not a genius?

- 14) Either in boiling or frying cooking requires precious time management. A cook in a restaurant has a four minute glass, and a seven minute glass, made of sand that shows the exact time. A customer orders a nine-minute egg. Using the two glasses, how to cook exactly in the time given, not to a difference of even few seconds?



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ANSWERS

- 1) If you say the boy can sacrifice his bath or coffee for 'love', these are not satisfactory answers. This question is about time management and not about love and sacrifices.

Time management is based on three important concepts: 'Prioritising' 'Allocating' and 'Multitasking'.

In the above situation, the daily chores should be divided into two groups. Tasks that require his presence (a), those that does not require him being there (b), and combine (a) and (b).

The boy should put on the geyser and do his yoga. Should complete both jobs by 7.10, take bath while making coffee (7.20), dress when cooking takes place (7.30), wear shoes in the lift (9.40). No other go.

Too hurried jobs. Yes. Love makes things difficult. But anyway, he can thus save ten minutes to talk to his fiancée (till 7.50) and reach his office by 8.30.

- 2) Light the two ends of one candle. It takes 30 minutes to burn out completely. Then light the second candle. (30 + 60 = 90 minutes).
- 3) Assume that the initial length of both the candles was L and he studied for X hours.

In X hours, the thick candle burnt = $XL / 6$.

In the same time, the thin candle burnt is $XL / 4$.

After X hours, the length of the remaining thick candle is $L - XL / 6$. (మార్పు చూడండి)

The length of the remaining thin candle is $L - XL / 4$.

The thick candle was twice as long as the thinner candle, when he finally went to sleep. Hence $(L - XL / 6) = 2(L - XL / 4)$

$$X / 6 = (4 - X) / 2 \therefore X = 3(4 - X)$$

$$6 - X = 12 - 3X$$

$$2X = 6 \therefore X = 3. \text{ He studied for 3 hours in candle light.}$$

Too many complications, isn't it?

- 4) It would take 75 minutes. Nakula takes the three others with his torch. It takes 5 minutes for bringing Sahadeva out, coming back inside (5), bringing Arjuna (10), back (5), bringing Bheema (20), back (5) and finally bringing Dharmaraja (25). Total: 75 minutes.

- 5) Because Nakula and Sahadeva are young, normally we think of taking more service from them. This is what many companies do. By this strategy, lethargic employees become lazier. We have to mix the group in such a way that the unskilled and unproductive are mixed with energetic workers.



First Nakula and Sahadeva come out (5 minutes).

Nakula goes back (5 minutes).

Nakula and Arjuna (10) come out,

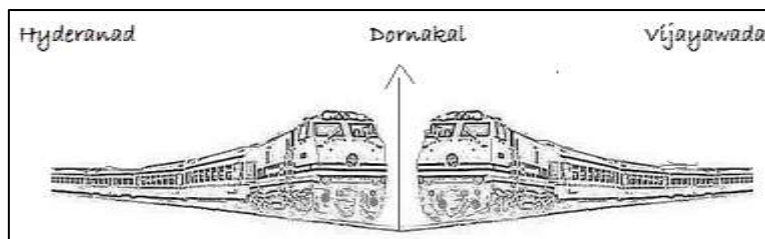
Nakula goes back (5), Bheema and Dharmaraja (25) come out,

Sahadeva goes back (5) and finally both youngsters come back (5).

Total 60 minutes. This is time-management.

- 6) When the trains meet, naturally both are at equal distance from Vijayawada. But this is first level of intelligence.

Second level is: When the Engines meet, the last compartment of Krishna Express would be nearer to Vijayawada.



- 7) There are no railway tracks in Afghanistan. They started construction work recently.
- 8) 8 a.m. By this time, eight hours have gone since midnight and four hours to noon.

- 9) Four. There is one 'interval' between two bell sounds. There are 2 intervals between 3 bells. It takes 2 seconds for each interval. Hence the answer is 4 (2X2) seconds. See the picture-below.



- 10) Apply the same principle. The clock takes five seconds for four intervals. In striking ten, there are nine intervals. Hence it would take $9 \times 5/4$ i.e., 11.25 seconds.
- 11) The intervals between six bells are 5. Time taken for it is 30 seconds. .⁶ 6 seconds for each interval. At 12, the intervals are 11. Therefore time taken for 12 ticks is $11 \times 6 = 66$ seconds.
- 12) From midnight to noon, it is 12 hours (720 minutes). Divide them in the ratio of 9:1. It is 648:72. Hence the answer is morning 10.48. By this time, 648 minutes have gone since midnight, and 72 minutes are remaining for the noon.
- 13) No brilliance is required for this. After 3 hours, it is 24,000,000. Hours, i.e. same time. I deducted 3 hours from it.
- 14) The cook has to flip both glasses and start cooking. As the 4-minute glass runs out, flip it back and continue. It will run for next 4 minutes. Total 8 minutes. Meanwhile the 7-minute glass runs out. Now you have one minute time in the small glass. Flip the big glass for that minute, and again when the upper part goes down, turn it back.

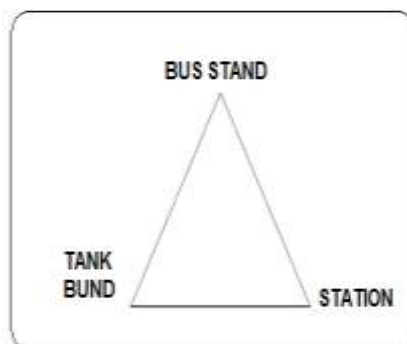
It is $7 + 1 + 1 = 9$ hours..

Cooking is also a real skill requiring precious time management. Don't you agree?



TIME AND DISTANCE

- 1) The distance from Station to Bus-stand, Via Tank Bund is 8 miles. From Tank Bund to Bus-stand via Station is 7 miles. From Station to Tank Bund via Bus-stand is 11 miles. Calculate the distances between: 1. Station and Bus-stand, 2. Station and Tank Bund and 3. Bus-stand and Tank Bund.



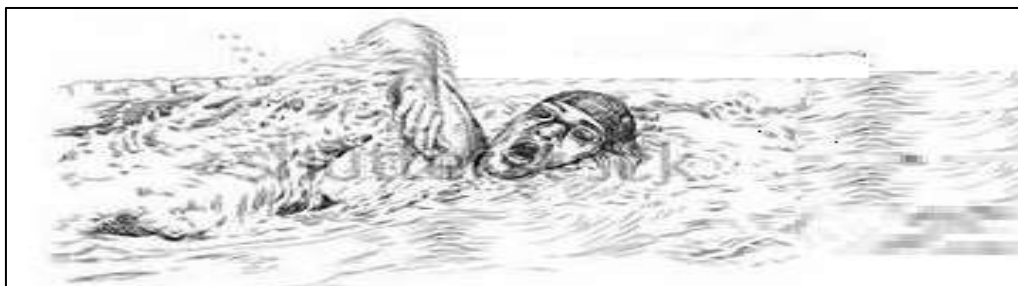
- 2) Raj Tarun and Avika Gour are on the two opposite banks of a river at point 'A' and 'B'.

They start off at the same time and row their boats to the other side.

They meet and pass each other at 720 meters from point 'B'. On reaching the opposite bank, they both rest for the same amount of time before they return. On the way back they pass each other at 400 meters from point 'A'.

What is the width of the river?

- 3) A steamer travels at 20 km per hour 'along with the flow' and 15 km per hour 'against' it. If the travel time difference is 10 hours between two stations, what is the distance between the two stations?
- 4) A swimmer jumps from a bridge and swims 1 kilometre against the stream. There he passes a "floating cork" coming in opposite direction, going towards the bridge.



He continues swimming forward for *half an hour* more, turns around, and swims back to the bridge. The swimmer and the cork arrive at the bridge at the same time. How fast does the water in the canal flow?

- 5) Many people cannot solve their personal problems due to lack of decision making. Seventy per cent problems can be resolved with good resolutions and by standing on those commitments.

Suppose you are rowing a boat. Along with you, a corpse is floating. As you are not pedalling the boat, you and the dead-body are moving with the same speed. You want to go 'away' from the foul smell (problem). You have two options now:



- Pedalling the boat back against the flow
- Rowing forward with the water flow.

Which is quicker and less strenuous?

- 6) In still water, your boat speed is 7 miles per hour. The stream is flowing against you at 3 miles per hour. Away from 14 miles, a tiny cork is floating towards you with water speed. How much time does it take for your boat to come across the cork?
- 7) If you drive at 20 mph and return at 30 mph, what is the average speed?
- 8) If you drive at 20 mph from point A to B, how fast you should drive back to attain an average speed of 40 mph?
- 9) A cyclist drives one kilometre in three minutes 'with' the wind; and pedals the same distance in four minutes 'against' the wind. How much time would it take for him to drive one kilometre without wind?
- 10) Two cars (A and B) are travelling in opposite direction with 60 and 40 miles per hour respectively. The distance between them is 100 miles. A bird starts along with car A, and flies at a speed of 80 miles per hour towards B. As it reaches car B, it turns back and again reaches car A. It turns to the opposite direction again. What is the total distance that the bird has travelled when the two cars met?



- 11) Balu and a new singer were practicing a song with 100 seconds aalap. At the end, she was slow by 5 seconds. To encourage her, this time Balu started 5 seconds late. Both sang with same speed. Now who will end first? Balu / Lady / Or both finish at the same time?
- 12) A father, mother and son have to reach a distance of 2 miles. They walk at 4, 4 and 8 miles per hour. They have a bicycle that they can

use only one at a time. They pedal at 8, 8 and 16 mph respectively. what is the *shortest time* that all the three can complete the trip? Here is a hint: The boy has to take the cycle and go back to hand it over to one of his parents, to speed the things up.

- 13) A duck swims in a perfectly *circular* pond (don't get mislead by the diagram down. It's a circular pond). A hungry fox at the shore, afraid of water, plans to catch the duck when it gets out. The land speed of the fox is 4 times as high as the water speed of the duck,



but however, once the duck reaches out without the fox nearby, it can fly and escape. Again don't ask whether ducks fly? The question is... Can the duck reach out safely to meet its friends?

- 14) The distance between a town and village is 32 km of which the first 8 km is up and the next 24 is down. While going on a cycle, a boy takes 170 minutes and on return takes 270 minutes.

What is his speed per hour while going up and down separately?

- 15) A passenger train starts at 5 p.m. from Agra and reaches Delhi at 10 p.m. From Delhi, for every one hour one train starts throughout the day from 12.30 midnight (at 1.30, 2.30 3.30 etc.). How many trains would cross the passenger rail before it reaches Delhi?
- 16) A computer may take few minutes to answer this question. They say Ramanujam, the mathematic wizard could answer in 10 minutes in the same fashion without the help of any computer, and also done it in few seconds in a sensible way.



Don't rush for the answer. Think...! Use common-sense.

A young girl was walking towards a Shakti temple at 3 km per hour.

Ram crossed her on a motorcycle at a speed that is 20 times more than her. He wanted to give lift to her but could not dare.

He travelled for 3 minutes and on seeing the temple of Shakti, he got courage and returned to ask her. But when saw her again he was not courageous. He returned back towards temple.

On seeing the Shakti temple he got inspired again and returned back towards her.

The process continued. In the final trip, he stood near the temple and prayed Goddess Shakti "Please give me courage". The girl, having reached the temple by that time, said from behind, "Shakthi means the power. It is not there in that stone. It is in you. Discover it within you."

Now the question is: How much distance did Ram travel in total?

- 17) I entered into a tunnel and crossed $\frac{1}{4}$ of its distance and heard a whistle from a train behind. I turned and ran towards the train and could barely get out of tunnel before it could hit me at the entrance. Had I moved to the other side in the same direction with the same speed then also I could have crossed the tunnel before the train could have hit me exactly at the exit of the tunnel. Assuming that my speed and the speed of the train were uniform, how faster was the train as compared to my speed?

- 18) Why there is a aroma of a familiar scent around old books?

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ANSWERS

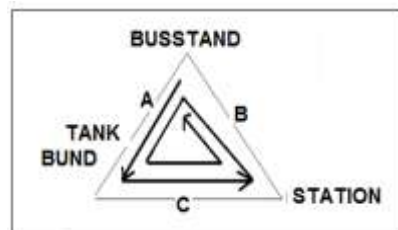
- 1) Consider that the distance between the three places is A, B, and C respectively.

$$A+B=8, B+C=7 \text{ and } C+A=11.$$

Add all the three. $2A + 2B + 2C = 26$ miles. $\therefore A + B + C = 13$.

Now the answer is simple. Bus stand to Station is 5 km ($13 - 8$), Station to Tank Bund 2 km ($13 - 11$) and Bus stand to Tank Bund is 6 km ($13 - 7$).

There is one more simple way. Take two turns touching the three places. You go around every place twice. You would notice that you travelled in total 26 miles. For two rounds if the distance travelled were 26 miles means, one circle would be 13 miles.



With this backdrop, calculate the distance between two stations.

- 2) Let us name Raj as 'R', and Avika Gour 'A', the time that both rest on reaching the bank as 'T' and the width of the river as 'W'.

Now it holds that the time in which Raj travels its first 720 meters, equals the time in which Avika travels the width of the river minus 720 meters. The equation would be: $720 / R = (W - 720) / A$(a)

The second equation can be derived as under:

The time in which Raj travels the remaining distance to the bank + his resting time + the time to travel further 400 meters = the time in which Avika travels the remaining 720 meters to the bank + her resting time + the time in which she travels the width of the river - 400 meters. $((W - 720) + 400) / R + T = (720 + (W - 400)) / A + T$.



This can be simplified to: $(W - 320) / R = (W + 320) / A$(b)

Combine (a) and (b): $720 / R : (W - 320) / R = (W - 720) / A : (W + 320) / A$. that can further be simplified as $(W - 320) = (W - 720) / (W + 320)$.

$W = 1760$. The river is 1760 meters wide.

- 3) If you take the algebraic way, it squeezes your energies.

Let us assume that the distance between two stations is 300 kilometres. It takes 15 hours to go with flow and 20 against flow. Difference is 5 hours. According to the question, the difference is 10 hours. Hence the distance is 600 kilometres.

- 4) It is simple common sense. Suppose the water doesn't move, then the cork also doesn't move. Assume water is still. As the swimmer is swimming away from the cork for half-an-hour, it will take him the same time to swim back to the cork again.

In one hour time, the cork has floated 1 kilometre down-stream towards the bridge. Hence it is evident that the water flows at a 1 km/hour.

- 5) Well experienced rowers, or for that matter, the navigators also feel that rowing forward along with water, is a better option. No. Both are *equally* strenuous and take same time.

When the boat, water and the cork are going *at the same speed*, either you move forward or backward, it makes no difference. Think a while.

Taking into consideration various factors leading to a problem is important in solving it, rather than worrying about it. Experience and wisdom count here.

- 6) There are two ways of doing this puzzle, *simple* and *mathematical*.

Mathematical: Your speed is 4 (7-3) miles per hour. Cork speed is 3 miles (water flow). You are travelling in the opposite direction. Hence the speeds are to be added up ($4 + 3 = 7$ mph). The 14 miles distance would be covered in 2 hours.



Simple: The cork is coming towards you with the speed of water, and you are against it. *Suppose the water is still.* The cork does not move. There is no effect on your boat speed also. You would cover the distance of 14 miles @ 7 miles per hour in 2 hours.

- 7) Hyperactive students rush to say that the average speed is 25. No. it is 24. Let us work out.

3 minutes to travel a km while going (@ 20 km per hour). 2 minutes while returning (@30 km per hour). Total: 5 minutes to travel 2 km.

In 60 minutes you travel 24 km. That is the average.

Another way of doing this sum is $\frac{1}{2} (1/20 + 1/30) = 5/120 = 1/24 = 24$.

- 8) To travel 40 miles @ 20 mph, it would take 2 hours.

To attain 40 mph average, you have to return in zero time.

Hence the answer is that you can never attain the average speed of 40 mph, even if you travel at light's speed.

- 9) This question is not as simple as it appears.

Contrary to the popular answer to problems of this kind, that if a rider goes a km in 3 minutes with the wind, and returns against the wind in 4 minutes, that $3 + 4 = 7$, should give an average of $3\frac{1}{2}$ minutes.

This is incorrect, because the wind has helped him for only three minutes, while it worked adversely for four minutes. We should work out on the same formula that applies to question 7 above.

With the wind the cyclist drives 1 kilometre in 3 minutes ($1/3$ km per minute) and back in 4 minutes ($1/4$ km per minute). Total $7/12$ kilometres in 2 minutes. Or $7/24$ km in a minute.

To travel one kilometre it takes $24/7 = 3\frac{3}{7}$ minutes.

- 10) If you start calculating mathematical formulas, it takes few hours to solve. It is obvious that the two cars meet after one hour. The bird has also flown all the time between two cars @ 80 miles per hour. Hence it travelled 80 miles in total.

- 11) Even then Balu completes first. Let us calculate. Suppose, it took 100 seconds for Balu to sing 100 bars, in that time she completes 95 bars.

Balu's speed is 1 bar per second and her's is 0.95 per second. Now in the second trail, Balu has to complete 105 bars and it takes 105 seconds. Within this time she completes 99.75 bars only.



- 12) Father goes on cycle for 1.25 miles at 8 mph & the time is $(1.25 \times 60 / 8) = 9.375$ minutes.

Meanwhile son walks at 8 mph (1.25 miles) and mother walks at 4 mph (0.625 miles). At this time distance between son and mother is 0.625 miles. Now son travels backwards with cycle & meet his mother in $[0.625 \times 60 / (4 + 16)] = 1.875$ minutes. During these 1.875 minutes father & mother walk forward $(1.875 \times 4 / 60) = 0.125$ miles. Now father needs to travel $(2 - 0.125 - 1.25) = 0.625$ miles. Mother & son need to travel $(2 - 0.625 - 0.125) = 1.25$ miles (2×0.625) . Now all three will reach at same time & that is $(.625 \times 60 / 4)$ or $(.125 \times 60 / 8) = 9.375$ minutes.

So Total time = $9.375 + 1.875 + 9.375 = 20.625$ minutes.

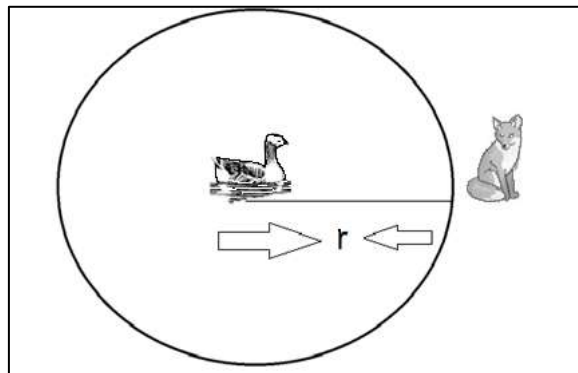
- 13) Yes. The duck can reach the shore...!

Assume that the pond has radius r . The fox speed is 4 times that of the duck. While the duck is strictly within radius $r/4$ of the centre of the pond, it is faster than fox.

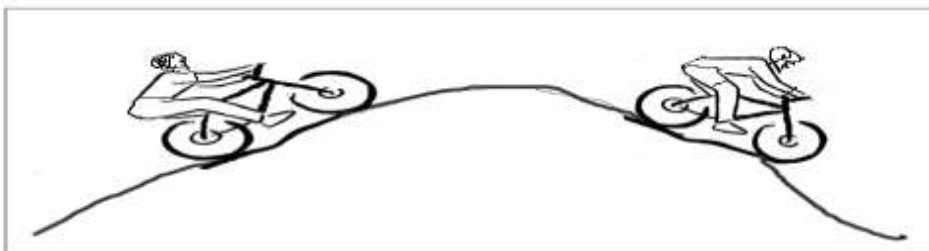
In other words, while staying in this small radius the duck can reach the "opposite side" of the fox. Once the duck reaches that opposite point, it will swim straight to the shore. The remaining distance is $3r/4$. The fox on the other hand has a distance of $\pi(\pi) \times r$, for which he needs $\pi \times r/4$ time.

Since $3 < \pi$, the duck wins.

Here is another simpler way. Let the duck rotate around the pond in a circle of radius $r/4$. Now fox and duck will take exact same time to make a full circle. But within few minutes, the fox get tired and the duck can go happily 😊. This is not mathematics but common sense.



14)



To go 8 km up + 24 km down, it takes 170 minutes.....(a)

To come 24 km up + 8 km down, it takes 270 minutes...(b)

Multiply 'a' by 3: For 24 km up + 72 km down, it takes 510 minutes...(c)

Deduct **b** from **c**.

∴ For 64 km going down it takes 240 minutes.

The speed while climbing up is 6 km per hour

While going down it is 16 km per hour.

15) Ten trains.

When the passenger started from Agra, there are *already* five trains on the track from the opposite direction.

Another five trains start between 5 to 10 p.m. Total ten.

A complex answer, but you can visualise.

There is another way to understand.

When the vehicles travel in the opposite direction, their speed is to be added. This is what we learnt in our earlier classes.

Hence each trains from opposite direction crosses the Agra train 30 minutes. Total ten trains.

16) An old book gives a homely smell that's reminiscent of a mixture of almond, vanilla, and grass. But why do old books smell like that?

It (మార్పు చూడండి) is due to organic compounds in the pages that break down over time and release chemicals. As readers sift through the pages of an old book, hundreds of volatile organic compounds (VOCs) are released into the air. Some types of paper contained rosin/pine tar and wood fibre. These materials also cause sweet smell while deteriorating.

- 17) This question is also based on the same formula of question No. 10.

Ram was travelling at 60 km per hour and reached the temple in 3 minutes. It means the temple is 3 kilometres away.

It would take one hour for the girl to travel this distance at 3 km per hour. During this time, Ram is roaming between her and the temple.

Hence he travelled 60 kilometres. Such simple is the answer.



- 18) Suppose the length of the tunnel is 4 miles. I travelled $\frac{1}{4}$ th of the distance when I heard the train coming. I ran back 1 mile to reach the beginning of the tunnel, by the time train reached the same spot.

If I ran in the opposite direction, I travel the same (1 mile) distance. It means: when the train reached the opening of the cave, I would be exactly at the *centre*, because the length of the tunnel is 4 miles. From there, the train (traveling for 4 miles) and me (running for 2 miles) reached the other side, at the same time. It means: the train speed is *double* my speed. This is one way of arriving at the answer.

It is more complicated algebraically. If train speed is X, mine Y, length of the tunnel T, and the distance of the train from the entrance of the tunnel at the time I turned back is E, here are two equations:

One: I covered $\frac{T}{4}$ distance and the train covered E distance in the same time, hence $\frac{E}{X} = \frac{(T/4)}{Y}$ or otherwise $\frac{X}{Y} = \frac{E}{(T/4)}$ which can be simplified as $\frac{X}{Y} = \frac{4E}{T}$.

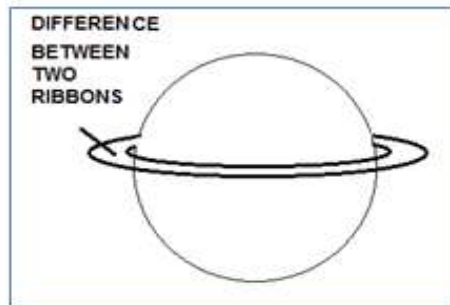
Two: I could have covered $\frac{3T}{4}$ distance and the train could have covered $E + T$ in the same time, hence $\frac{(E+T)}{X} = \frac{(3T/4)}{Y}$ which means $\frac{X}{Y} = \frac{(E+T)}{(3T/4)}$ and to make it simple, it would be $\frac{X}{Y} = \frac{4(E+T)}{3T}$.

Working on *one* and *two* $\frac{4E}{T} = \frac{4(E+T)}{3T}$ that means $E = \frac{(E+T)}{3}$ $3E = E + T$ or $T = 2E$. replacing the value in equation (I), $\frac{X}{Y} = \frac{4E}{2E}$ we get $\frac{X}{Y} = 2$. Train speed is double than mine. Too complicated.

-000-

HISTORY AND GEOGRAPHY MADE EASY

- 1) Which airplane (travelling between the following cities) flies over Andhra Pradesh in normal weather?
A. Chennai–Pune. B. Colombo–cochin. C. Mumbai–Varanasi. D. Delhi–Cuttack.
- 2) A person started towards south, took left turn after sometime, and then left. Which direction is he facing now?
- 3) Gotham walked 50 meters South, took a right turn and walked again for 30 meters. He then took a right turn and walked 100 meter. He again took a right turn and walk 30 meters and stopped. How far and which direction was he from the starting point?
A. 50 meters towards South. B. 150 meters towards North C. 180 meters East D. 50 meter North e. None.
- 4) How many unmanned islands exist in the cluster of Andaman and Nikobar: (పూర్వ చూడండి)
A. Less than 10. B. Less than 100. C. More than 100.
- 5) How does a person get his hair cut on the moon?
- 6) Suppose you take a long ribbon and wrap it tightly around the earth at its equator. For this you require 40,070 km lengthy ribbon.
Now you raise the ribbon from the surface of the earth by another 1 meter. How much more ribbon you require? Remember, the ribbon is raised not at one point on the earth but all around it equally. The diagram below will make things clearer. Choose your answer among these three:
1) More than 1,000 Km. 2) More than 5,000 km. 3) Less than 10 km.



- 7) For a question in 2016 group selection exam, “What is the name of our present P.M. in 1984?” a candidate wrote “Mahatma Gandhi”. If you were there then, what would be your answer? Choose from the four: Modi/ Indira Gandhi/ Man Mohan Singh/

None of these.

- 8) Which are the rivers make Triveni Sangamam.
- 9) Who wrote "My experiment with truth?" (మార్పు చూడండి)
- 10) Bhagvad Geeta is in which *Parva*?
Bheesma parva / Kurukshetra parva/ Aranya kanda.
- 11) Which are the countries that touch Indian border excluding POK?
- 12) Among the 3, which state shares its boundary with maximum number of states: 1. Andhra 2. Telangana 3. Karnataka
- 13) Can you name four of your neighbouring states?
- 14) If you are facing east in Amravati in AP, which side are Himalayas?
- 15) If you are facing west in Mumbai, which side is Arabian Sea?
- 16) If you are facing north in Kerala, which side is Sri Lanka? Left / Back/ Front / Right.
- 17) If you are facing south in south India, which side is South-Africa? Left/ Back/ Front / Right.
- 18) If you are facing East in South India, which side is Australia? Back/ Front / Left / Right? Between back and left? Between back and right? Between right and front? / Between left and front?
- 19) Which was the highest mountain before Mount Everest was found.
- 20) Which was the largest island in the world before Australia was discovered?
- 21) Which country makes Panama hats? Ecuador/ Panama/ Australia?
- 22) When do Russians celebrate the October Revolution? October / November / December .
- 23) What did Rama do on a Diwali night, when Sita was in the custody of Ravana? He was weeping / He went out for hunting / Felt his wife's absence / None of these.
- 24) A hunter walked 1 kilometre *straight* from his hut, chased a bear to his left perpendicularly 1 kilometre, caught it, turned to his left again perpendicularly and dragged it straight for 1 kilometre.



Surprisingly he found his hut, without turning left *to complete the*

square. Now the question is: What is the colour of the bear?

- 25) A Japanese ship is on route back to the shore from the Atlantic Ocean. Seeking the silent waves, the captain decides to take a shower. He keeps his Rolex and diamond studded gold bracelet on the shelf and goes for a shower. When he returns back, he finds both the watch and bracelet missing. He immediately calls the four crew members and asks them what they were doing during that duration. Following are the answers:
 French Guy, the Cook: I was in the kitchen, making sandwiches.
 Russian Guy, the engineer: I was in the generator room.
 Pakistani Guy, the housekeeper: I saw that the flag hoisted on the ship was upside down. So I went to correct it. Sri Lankan Guy, the second housekeeper: I was tired and taking a quick nap.
 The captain immediately knew who the thief was. How?
- 26) If Russia and America launch their "everything-equal" missiles at each other, at same time with same speed, America will be destroyed first. Why?
- 27) The cyclone in Bay of Bengal normally travels from:
 East to west / West to East / East to South / East to North.
- 28) On Jan 31st midnight, I was driving in Antarctica. It was freezing cold. I was on an isolated unpaved road when my car battery went dead. The headlights went off and I stopped my vehicle. There were no 'moon' or 'stars out', and no human-made lights visible. Yet I clearly saw a small mouse cross the road and could tell that the colour of it was brown, not grey. How is this possible?
- 29) An historian-cum-archaeologist claimed that he found few gold coins of 134 BC. His son believed but daughter smiled. Why?
- 30) When British left our country, Indian officials were surprised to see foreign army commander's bungalow having 3 servant toilets in back yard. It was general policy that army commanders were allotted three servant. Separate bathrooms for male and female servants is understandable. But why *three* toilets?
- 31) Out of these animals which do not vomit?
 Rats /cats/ dogs/ horses.
- 32) Which book has the record of being stolen from libraries most often?
- 33) 'A girl's geography makes her history'. Who said this quote? In which book?

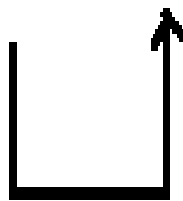
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ANSWERS

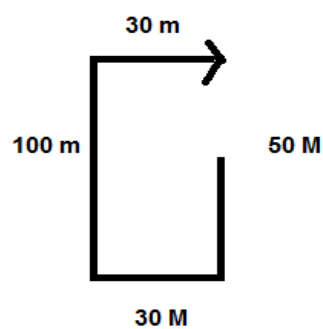
- 1) Answer: A. Chennai-Pune.



- 2) NORTH. See the diagram below.



- 3) 50 meters north.



- 4) More than 100.
5) Hair cutting process on moon is also same as on earth. The

customer sits in a chair, or on floor with or without a mirror. The barber does his job. Only difference is that his hair falls slowly on earth... sorry... moon's surface. due to lesser gravitational force.

- 6) Suppose the radius of earth is r , the circumference of earth (length of ribbon) would be $2\pi r$ **(a)**

If tied at 1 meter height, the length of ribbon would be $2\pi(r+1)$ **(b)**

The difference (**a**– **b**) is $2\pi(r+1) - 2\pi(r)$.

It is just 6.3 meters approximately.

The variance doesn't depend on the magnitude or radius of the earth. With 1 meter difference, whether you wrap the ribbon around a football, or around earth or around the waist of an ant, you require just 6.3 meters 'more' ribbon...! Amazing, isn't it?

Not convinced?



Take the example of a giant ant as shown above. Suppose its belly has 1 meter radius. To tie a ribbon around its belly, you require $1 \times 2(22/7) = 6.28$ meters.

With 1 meter height, you require $2 \times 2 (2 \times 22/7) = 12.56$. Difference in length is 6.3.

- 7) Modi. The question is not “Who was our ruling prime minister in 1984?” It is – “What is the name of our present prime minister in 1984”.

The question was asked in 2016.

Our Prime Minister in 2016 was Modi. Moreover, his name was the same in 1984 also.

- 8) Ganga, Yamuna, Saraswati in India. Godavari, Pranahita and Sara Swati near Kaleswaram in Telangana.
- 9) Mahatma Gandhi.
- 10) Bheeshma parva.

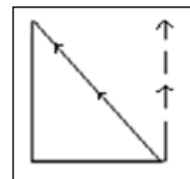
- 11) China, Pakistan, Bhutan, Bangladesh, Myanmar, Nepal.
- 12) All the 3 states with equal number. For details, see next answer down.
- 13) For Andhra: Karnataka, Orissa, Tamil Nadu, Telangana, and Chhattisgarh.
For Telangana: Orissa, Karnataka, Maharashtra, Chhattisgarh, A.P.
For Karnataka: Maharashtra, Goa, A.P, Tamil Nadu, Kerala.
- 14) Left.
- 15) Front.
- 16) Back.
- 17) Right.
- 18) Right and front.
- 19) Mount Everest, without its name.
- 20) Green land. Not Australia, even without its name. Australia is a continental land mass. It is separated from other continents by young oceanic crust. Greenland is geologically part of North America, but if separation is the key factor then Antarctica should be considered as biggest island (making Australia second largest).
- 21) Ecuador.
- 22) November.
- 23) None of these. Diwali is celebrated on the occasion of Narakasura's death, which is after the Ramayana era.
- 24) The bear colour is White.

Surprised?

The hunter found his hut after turning only two times, but not



three times. It means he completed only a triangular-circular, but not a square even though he turned perpendicularly. (Dotted lines show, where he should have been). It happens

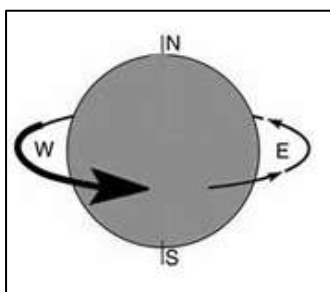


only at polar region. Longitudes join in a triangular shape at south and north pole regions. See both the diagram. You know that bears are white there..

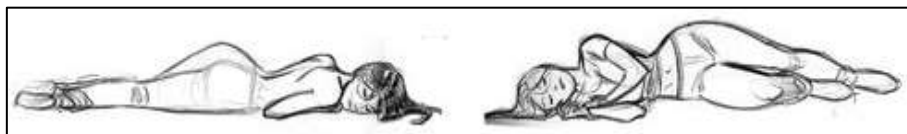
- 25) The thief is the Pakistani guy. It is because the flag of Japan looks same when upside down. So, he was telling a lie.



- 26) Because missiles go out of atmosphere and enters into it again while earth rotates from west to east.



- 27) East to west.
- 28) In Antarctica, , the day-light continues in the nights also in January.
- 29) Coins before Christ cannot have the inscription 'B.C.'. How do the coin manufacturers know that Christ is going to be born in next 134 years to print on the coins 134 B.C.?
- 30) You will be surprised to know this historic fact. British have separate toilets for white servants (gents, ladies) and black servants. Hence there were three toilets.
- 31) Rats and horses do not vomit.
- 32) Gunnies book of world records has the record of being stolen from public libraries more often than any other book.
- 33) Yandamoori. In this book.



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FACT FINDING PUZZLES

- 1) A historian, mathematician and a geologist were travelling in a train. After a silent travel for few minutes, the mathematician said, "the train is going very slow. We travelled just 3.50 kilometres".

"How can you be so sure?" historian asked. How could he make out the speed and distance travelled, sitting inside the compartment?



- 2) If you multiply a person's left hand fingers with another person's, the answer is 25. Assuming that there are approximately 5,000,000,000 people on Earth. if you multiply the number of fingers on every person's left-hand, what would you estimate to be the result,? Try to estimate how long the number would be... or approximately how many zeroes would there be in that number?
- 3) Every year the government prints million thousand rupee notes to circulation. Why 2014 notes are more valuable than 2013 notes?
- 4) My friend, after returning back from a pet show, told me that all except two animals were rabbits, all except two animals were cats and all except two entries were dogs. I was puzzled and could not understand how many animals of each kind were present in that show. Can you tell me?
- 5) I have no brothers. I show you a painting and say, 'His father is my father's son', who is he to me? Me/ My son/ My father/Grand father?
- 6) Do you have the habit of keeping everything new and fresh or don't mind anything? If somebody offers, what currency do you prefer to have: Old ten rupee note, or new One?
- 7) 5 passengers get into a bus at 1st stop. 5 get down and 10 people enter in at 2nd stop. 11 people get off at 3rd. How many people are in the bus proceeding to its terminal? -1 / 1 / 0/ wrong question.
- 8) Can a mouse / pig standing underneath the tree look at the fruit hanging on its branch?
- 9) Which was invented first? Match stick or Lighter?

-o0o-

ANSWERS

- 1) Certainly yes. Just by listening to the wheel's sound. The joints of the railway track are the reasons for the rhythmic sound when you travel in a train. The length of each track is 15 meters. Multiply it with the number of rhythms per minute. You would know the speed of the train per minute.

- 2) The answer is Zero. Surprised? There would be at least one person in this world without fingers on his left hand. Anything multiplied with zero is zero. Isn't it?

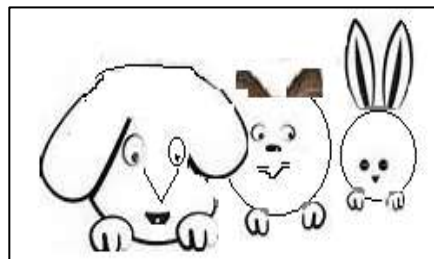


- 3) Because there is one extra note (2013 / 2014).

- 4) The question may appear complicated, but once we study the statements, it is just a tricky one.

In the pet exhibition, there is only one rabbit, one cat and one dog.

All except two were Rabbits, and all except two were Cats. With this statement we can assume that 2 of the animals were *not* rabbits and 2 were *not* cats. Now one of those animals that are not rabbits, can be a cat and one of those two animals that are not cats can be a rabbit. If we carry out the same analysis for the statement that all except two animals were not dogs and we come get the result i.e. there was one rabbit, one cat and one dog.



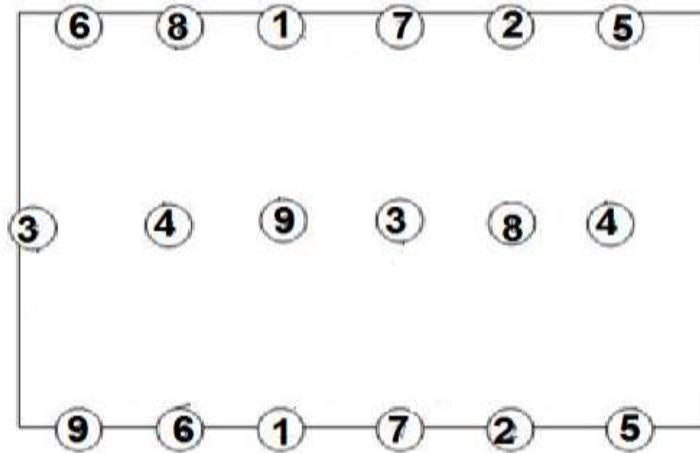
- 5) He is my son. Look at the underlined three words in the question. 'My father's son' can be replaced by a single word, '*me*' (as I have no brothers). The statement thus can be read, as "His father is *me*". Means, the person in the painting is my son.

This is how you have to eliminate the complications and confusion in a question to make it simple.

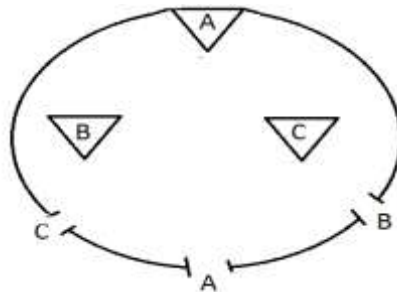
- 6) Don't you think, ten rupee note whether old or new, is always better than one new rupee note?
- 7) One. The driver is taking the bus to the terminal.
- 8) Neither the mouse, nor the pig can rise their head. But mouse can rise on its legs and look at the sky. Pig can never look up to see the fruit.
- 9) Lighter is invented before match stick.

FIND-THE-WAY PUZZLES

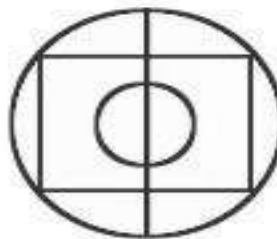
- 1) Connect the numbers. The lines should not intersect. All lines should be inside the rectangle. Try with a pencil.



- 2) Can you draw three roads from their houses to their respective gates satisfying these three conditions: 1. The lines should not intersect one another 2. The lines should be within the compound wall only. 3. No road can pass behind A's house.



- 3) Can you draw the figure shown below in one stroke? You should not lift your pen before finishing it. You should not draw a line on the 'already' drawn line.



It is not as difficult as it appears to be. Just try.

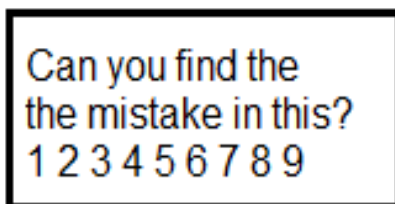
- 4) Entertain your kid with this question particularly if she / he is hyperactive. Offer him / her a good gift. This puzzle requires lots of patience. Start from the letter 's' and draw a straight line to the next grid, either to left, right or down. On '1' you can change the direction. But on '2' you have to compulsorily continue to go in same direction only. *You should not pass any grid twice.* At the end of the game, you should have covered all the grids.

1	1	1	1
2	1	1	2
2	s	2	1
1	2	2	End

- 5) Applying the same principle, solve the puzzle below.

1	2	s	1	1
2	1	1	2	2
1	1	1	1	2
1	2	2	2	1
1	2	2	2	End

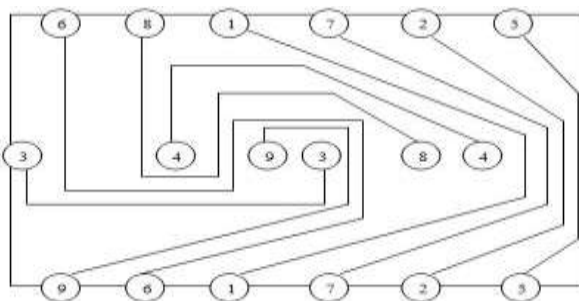
- 6) Can you find the mistake in this?



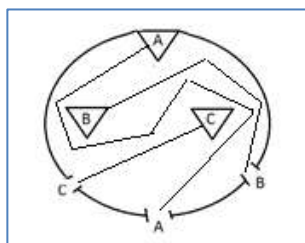
- 7) You are given numbers 2, 3, 4 and 9 and asked to make it 42 by placing symbols and brackets in between them. For example, you can work out as $(9 \times 4) + (2 \times 3) = 42$. Based on the same principle, with the same numbers, can you make 42 with different combinations? There are at least three. Try.
- 8) How many new born in the world do you think, are given to wrong parents on average per year in maternity homes ?

ANSWERS

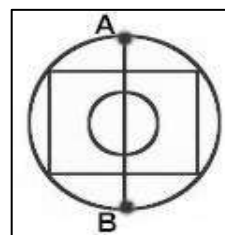
- 1) If you start from 1 to 1 and 2 to 2, you can never join the lines. Start from 3 to 3, 4 to 4, 1 to 1, 2 to 2, 5 to 5 and so on and you would find it easy.



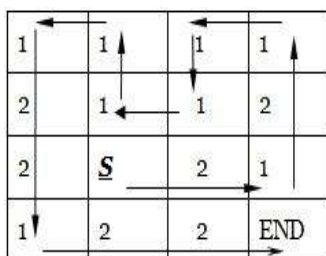
- 2) If you start drawing the line from A to A, you can never finish the job. Unsuccessful people draw such lines and never think of solutions for their problems. Their only answer to any challenge is "No. I can't". here is how you should solve this puzzle. First draw a straight line from C to C and then B to B and finally from A to A.



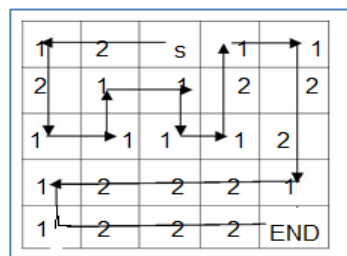
- 3) A terminal is defined as a connection with odd number of lines connected to it. If there are only 2 terminal points in the figure, then one terminal must be the starting point and the other must be the ending point. If there is no terminal point at all in the figure, then the drawing can start from any point and finish at any point. Start from the terminal point A and finish it on the other terminal point B as shown in the figure.



- 4)



- 5)



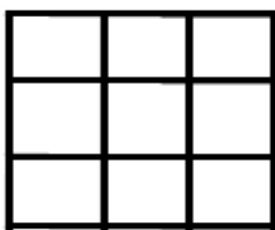
- 6) The word 'the' is repeated twice.
- 7) A) $3 \times [(9 \times 2) - 4] = 42$.
 B) $[4 + (2 \div 3)] \times 9 = 42$.
 C) $[(3 \times 4) + 9] \times 2 = 42$.
- 8) Around 12 %

PICTURE PUZZLES

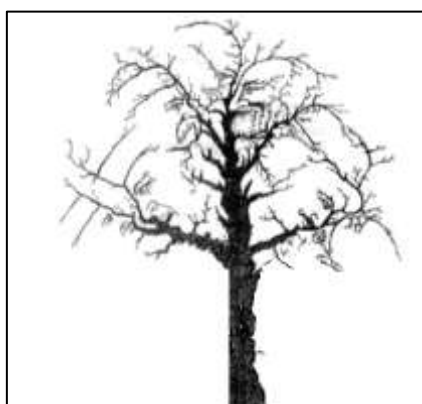
- 1) Can you find any word in this diagram? See carefully. There is an alphabet 'L' on her neck. Her eye ball constitutes 'o'. You will find some more, to form a word. Just check in.



- 2) Place 9 alphabets A,B,C,D,E,F,G,H,I into the 3 x 3 box, in such a way that E is to the right of C. A to the right of G which is above B, which is to the left of F. 'I' is above D which is to the left of G.



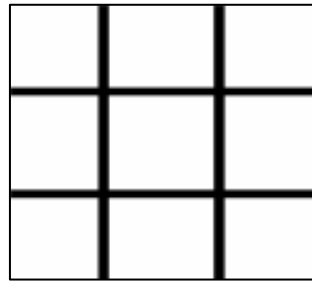
- 3) Here is a wonderful painting. Hats off to the painter. How many faces can you find in this diagram ?



- 4) Fill the stars with numbers from 1 to 12, using every number only once. The total of 4 stars connected by lines should be 26.



- 5) The puzzle is one of the toughest from this book. Before attempting it, you should know the fundamentals of the Tic-Tac game. Do you know about this game? Two people play this with a paper and pen or piece of chalk. One starts. Next move is the second person's. After six moves, whoever 'ticks' 3 in a straight line wins. Such a simple game it is. Here is a small puzzle for you. Can you place six dots on a Tic Tac Toe board without forming any three-in-a-row combination vertically, horizontally or diagonally? Nobody should win.

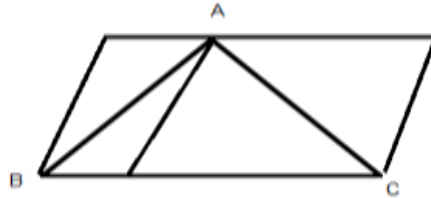


- 6) Rama and Sita play a game of tick-tack-toe. In the game shown below six moves have been made. Ram plays with crosses (X) and Sita plays with circles (O). However, we do not know who started the game. The Question: Who will win this game? This is really tough.

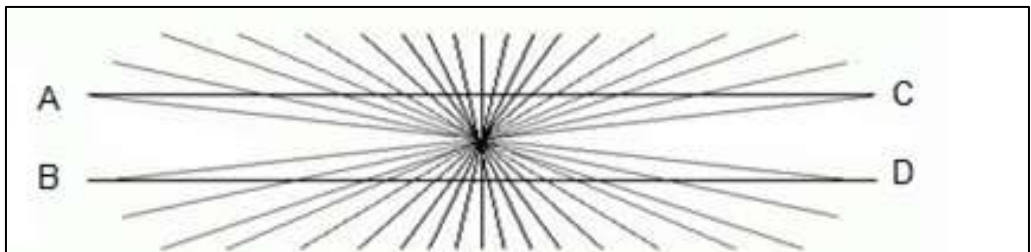
○	○	
○	×	
×	×	

- 7) During life-time how many insects a person does swallow inadvertently while sleeping?
10 / 100 / 1000.

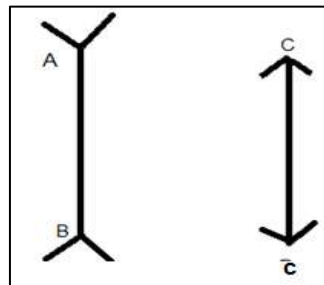
- 8) Choose the correct answer from the following diagram: 1) AB is lengthier than AC. 2) AB is shorter than AC. 3) AB is equal to AC.



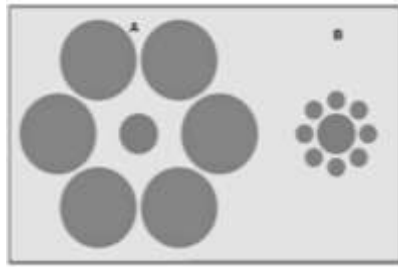
- 9) Lines AC and BD... Are they straight and parallel or curved?



- 10) These two lines.... Are they equal? If one is longer, is it AB or AC?



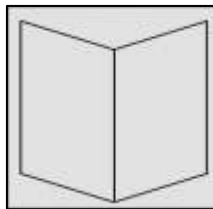
- 11) Which circle is bigger? The Left one, surrounded by big circles or the Right one?



- 12) If you feed a couple of rats, how may they multiply into in an year? 100/1000/10,000/100,000.
- 13) Which vehicle is bigger among these three?

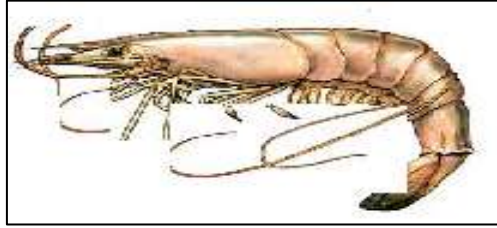


- 14) Can you read this book? Or do you think that the book is turned to the other side?



- 15) Can you find out hidden words in this diagram? There are 7. Try.

19) Where does heart of a shrimp locate?



20) when you hear with your head-phones on for an hour, How many times does the bacteria multiply in your ears?

10 times /100 /1000.

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ANSWERS

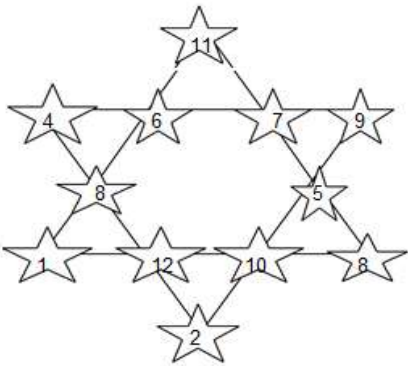
1) I love you.

2)

I	C	E
D	G	A
H	B	F

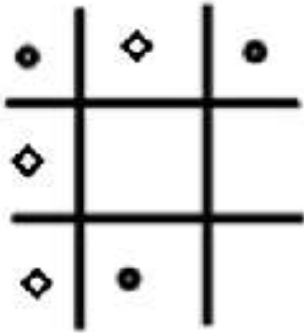
3) More than 3 for normal eye. Watch carefully, and you will find one more. If you are patient enough, you can again find one more. My sight is not that good. If you try, you may get one more. Total 6.

4)



5)

correct one:



- 6) This is a complicated one. Let us try to crack it. It is clear that once we know who made the sixth move, we know who (the person who is making the last and 7th move) is going to win. If Sita (circles) has made the sixth move, there are 3 possibilities for the situation, after five moves:

POSSIBILITY 1	POSSIBILITY 2	POSSIBILITY 3																											
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Based on the rules of the game, only first possibility (1) could have resulted in the situation after 6 moves.

POSSIBILITY 1	POSSIBILITY 2	POSSIBILITY 3																											
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In that case, there are 3 possibilities for the situation after 4 moves. Ram (crosses) would have made the winning move, which however did not happen.

From this, we can conclude that Ram did not make the 5th move and Sita did not make the sixth move.

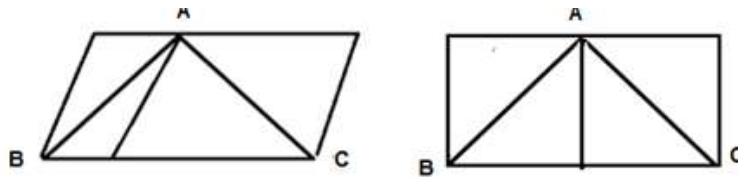
Therefore, Ram must have made the sixth move and Sita can make the seventh... winning move.

To check that, Ram could indeed have made the sixth move, we look at the following three possibilities after five moves.

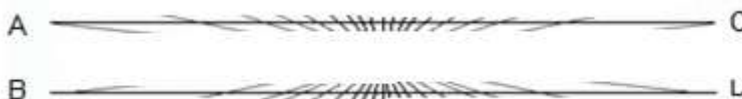
POSSIBILITY 1	POSSIBILITY 2	POSSIBILITY 3																											
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Based on the rules of the game, only possibility 3 can result in the situation after six moves. Therefore, Ram could indeed have made the sixth move. So, Sita makes the final move to win. Too complicated... isn't it?

- 7) Around 7.
- 8) AB, AC in both diagrams are equal. Check the figures underneath with same measurements.



- 9) Both lines are straight and parallel. Check the below diagram without cross lines and compare with the diagram given in the question. This is just an optical illusion.



- 10) Don't think too much. AB is slightly lengthier than CD. There is 'no' optical illusion here.



- 11) This illusion misleads our size perception. You will be surprised to know that both are exactly same in the sizes. But you might think that the right one is bigger. right? Why? This is because we are perceiving the sizes in relation with the circles surrounding. Since the left ones are larger, we perceive that the inner circle is smaller than the right one. See below. Both are of same size.

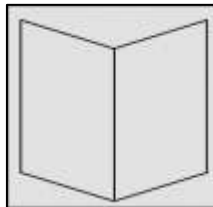


- 12) Around a million.
- 13) With the experience of previous questions, if you say that **all are**

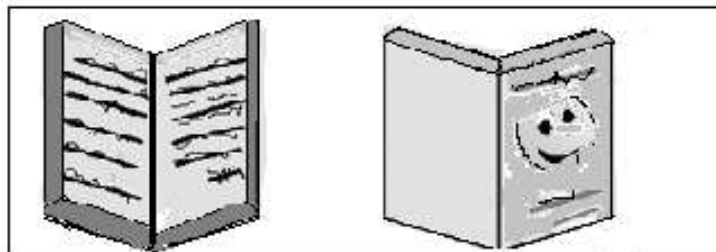
equal, you are mistaken. Never take anything granted.. All are NOT of same size. Just see here.



- 14) Initially you may find the below book opened towards you or vice versa.



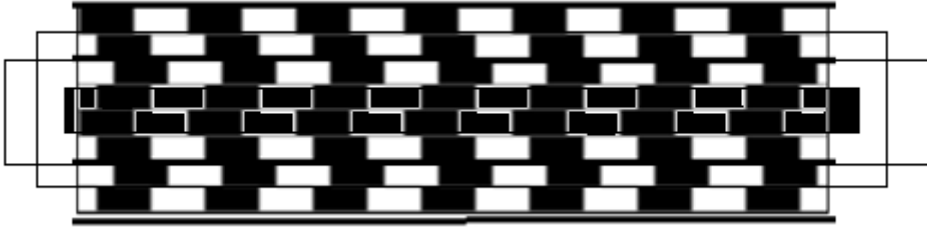
If you glare at it for some time, you feel that the cover page is towards you or otherwise. It is just the matter of perception. You can perceive it, as pointing towards you or away from you. *If you concentrate a bit, you can find both of the results.* Take it as an



exercise and try to observe the both. Below is the same book above shown, with the *same* dimensions, but with pages painted on them.

- 15) WORDS, BOOK, PAGE, NOVEL, STORY, READ.
- 16) This is one of the classic illusions that has now been taken up by many architects or designers and are used in many shops' or

cafeterias' walls. The disorderly black and white squares are responsible for making us perceive that the lines are bent. However they are not. They are all parallel. If you want a proof, you can measure it with a ruler. Or paint them with black colour, as done here.



- 17) You notice a girl here. You can also find an old man with moustaches. But if you find carefully, you can notice her mother also. Observe keenly.



- 18) They are not in a line. Kazal Agarwal should be in B/6 not B/7.

	1	2	3	4	5	6	7	8	9	10
A	—	—	—	—	—	—	—	—	—	—
B	—	—	—	—	—	—	—	—	—	—
C	—	—	—	—	—	—	—	—	—	—
D	—	—	—	—	—	—	—	—	—	—
E	—	—	—	—	—	—	—	—	—	—
F	—	—	—	—	—	—	—	—	—	—
G	—	—	—	—	—	—	—	—	—	—

- 19) The shrimp's heart lies in its head.
 20) Bacteria increases by 1000 times. Avoid this habit.

HOW TO SHARE

- 1) A rescuer has to climb 300 meters hill-top carrying ropes etc., to save a stranded person. He cannot travel unless he consumes 1 oxygen packet for every meter he climbs / comes down. He has 900 small packets but can carry a maximum of 300 only at a time. He doesn't mind travelling 'up and down' any number of times carrying the packets in batches. While coming down, both of them require at least 80 packets each. How many "maximum packets" can he take to the final destination? Time is not a constraint.



- 2) Prakash Raj takes a private car from his house to office located at the outskirts of the city in the morning and back home in the evening. It costs him 300 rupees a day.

One day two students proposed to him that they wish to go to their college in the morning along with him. They need not be dropped back. Their get-in point is exactly *halfway* between his house and office. Their college is adjacent to his office.



Raj told them, "I will let you travel along with me free, if you tell me the correct price that each one of you should pay for *your portion*

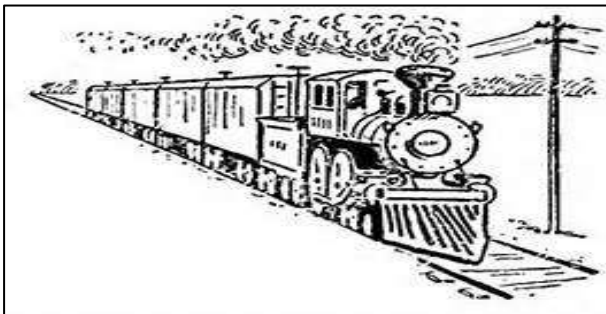
of the trip". How much should each individual student pay?

- 3) 3 workers would like to know their average salary without disclosing their own salaries to the other two. How can they do it?
- 4) This is a challenging question to be worked out on the cost of share. Many students confuse in understanding this question.

A had 5 chapattis, B had 3 and C had nil. They all ate equally and C paid 8/- to them as the price for what he had eaten. How much A and B should get from the said amount? Choose from the following 4 answers: A5, B3 / A7, B1 / A4, B4 / none of these three.

- 5) This question requires both intelligence and common sense. Here are 12 boys who do not accept anything less or more. Can you share 7 apples among these 12 boys equally? You should not cut any apple into more than 4 pieces? Don't think of making a sauce or juice and distribute equally. This is a mathematical question.
- 6) Can you share 5 apples among 6 people equally, not slicing the fruit more than 3 times?
- 7) You have 2 red, 4 yellow, 6 purple, 8 brown, 10 white, 12 green, 14 black, 16 blue, 18 grey, and 20 orange socks. It is dark, so you can not distinguish between the colours of the socks. How many socks should you take out to have at least one pair (2) of the same colour?
- 8) In the above question, if you want to take out at least three pairs of same colour, how many socks you should bring out?
- 9) Intellectual endurance" is capacity to concentrate. At one point (y)our brain ceases to cooperate, but don't stop. Take a 'single digit' number and a 'three digit number' such as 8 and 156. Add 13 to the first number and deduct 7 from the later. Do it *simultaneously*. 08 – 156; 21 – 149; 36 – 142. As you reach the single digit answer on the right side, What are your final figures? *Do it step by step.*
- 10) I plan to go in search of a Treasure island in a thick jungle. I can carry food for 4 days only, whereas I estimated to reach the destination in 6 days. How many assistants do I need to carry my food for this adventurous journey? Note that they have to carry their food also.
- 11) Between Delhi and Gwalior there are 2 existing halts Mathura and Agra. If another 1 new station *Farah Town* is built in between, how many types of extra tickets the railways has to print?

- 12) There are 2 existing halts A and B between Delhi and Agra. To build another 2 new stations C and D in between, the railways have to print 18 types of extra tickets (To and fro: Delhi to C and D, Agra to C and D, A to C and D, B to C and D and between the two new stations C-D).



Taking this as an example, there were N existing stations on a railroad. After adding X stations 120 additional tickets have to be printed. Find N and X .

- 13) A young prince wants to marry a mathematician's daughter. Her father decides to test the intelligence of the prince. He gives him two empty vases, 100 white and 100 black pearls.

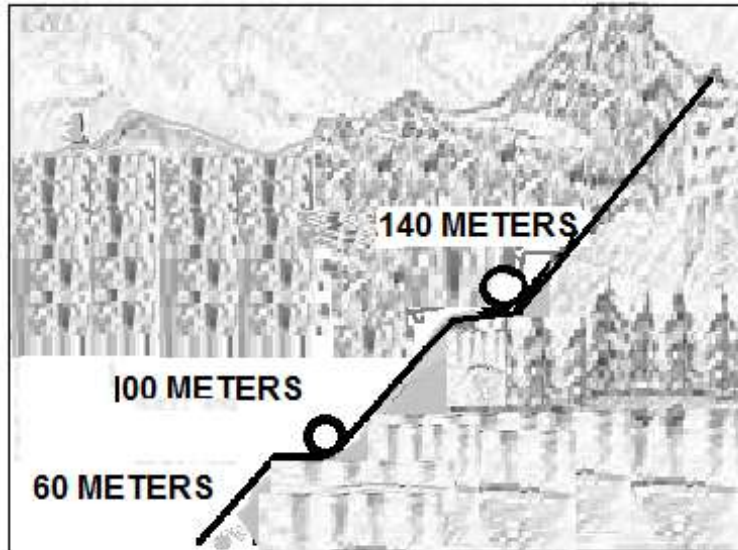
"You must put all the pearls in the two vases. In which ratio you mix them up is your choice" he tells him. "...After this, I will call my daughter. She will take *one each from the two vases*. If those two pearls are white, you are allowed to marry my daughter."

The prince is for sure that 100% it is not possible. Now the question is, if the prince is brave, what is the best way the prince could divide the pearls between the two vases, to improve his chances of marrying his beloved?

- 14) A king is hosting a party with 4 bottles of wine in next *one* hour. As the guests are about to arrive, the secret agents told him confidentially that one of the bottles is poisonous, and even if a single drop is consumed, the person behaves normally for the first hour without any symptoms, suddenly collapses and dies in another 40/50 minutes. The party is about to commence in one hour. The king can maximum 5 to 10 minutes and not beyond that. With how many *minimum number* of rats can he locate the poisonous bottle?
- 15) How many rats are required If 8 bottles are to be tested,?
- 16) How many rats are required if the party is with 1000 bottles?
- 17) Can we weep in a space ship while travelling to Moon?

ANSWERS

- 1) Total distance to be covered is 300 meters and the packets are 900. If he takes 300 (the maximum that he can carry) to the hill top, by the time he reaches there, he would be empty handed. Hence there should be some other way to carry the required packets (80 for two people) to the final destination. We should find out three or four places on the way to store the packets. On these terms, here is the solution.



First, he takes 300 packets to a distance of 60 meters. Let us call it Point A. While going up to there he consumes 60 packets, keeps 180 packets there and returns with 60 packets to consume midway.

Again he takes second batch of another 300 packets, breaths 60, keeps 180 and comes back with 60 packets to breathe while returning.

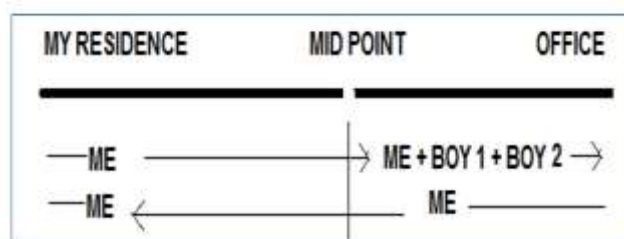
Now he carries the last batch of 300. At Point A, now there are 600 (180 + 180 + 240) packets. From there, he takes 300 packets to a distance of further 100 meters... say Point B.

He places 100 there and returns with 100 packets to consume while trekking down. Then he carries the remaining 300 packets to B. Now there are 300 packets at Point B.

The final destination from point B to hill top is 140 meters.

He carries the 300 packets and arrives there with 160 packets. Both would come down breathing 80 packets each.

- 2) Divide the entire journey into four parts: His house to middle point, and from there to his office and vice versa. The students catch him at half-way, and travel with him till destination. He travels four parts. They are two people, making it total six parts. Each part costs $\frac{1}{6}^{\text{th}}$ which works out to Rupees 50/-. each student should pay 50 rupees. If he prepares chart of sharing, it would be like this.



- 3) Person A writes his salary plus 'x' amount and hands it to B.
 B adds his salary plus 'x' amount and passes to C.
 C adds his salary + some more amount and passes on to A.
 Now A subtracts his 'x' amount and passes to B. B and C each subtract their random numbers. They have the total, and thus the average.
- 4) Calculate the cost of each chapatti. C ate $\frac{1}{3}$ portion and paid 8 rupees. Hence, the total cost of eight chapattis is 24. Cost of one chapatti is Rs. 3/-.
 A has 5 chapattis worth 15 rupees; and B has 3 worth 9 rupees.
 All the people ate equally.
 A and B ate 8 rupees worth and gave the extra to C. Hence A should get 7 rupees (15-8) and B should get 1 rupee (9-8).
- 5) Seven apples are to be divided among 12 boys. Hence each would get $\frac{7}{12}$ apple.
 But the condition is that no apple should be cut into more than 4 pieces. Hence divide $\frac{7}{12}$ as $(\frac{3}{12}) + (\frac{4}{12})$. Cut 3 apples into four (12 pieces), another 4 apples into 3 (12 pieces).
 Each boy gets $\frac{1}{2} + \frac{1}{3}$ piece.
- 6) Dividing 5 apples among 6 boys, each boy gets $\frac{5}{6}^{\text{th}}$ apple, i.e., $\frac{3}{6} + \frac{2}{6}$. Cut three apples into half each (6 pieces) and another two apples in $\frac{1}{3}$ each (6 pieces).

Each boy gets $\frac{1}{2} + \frac{1}{3^{\text{rd}}}$ apple. 42—(మార్పు చూడండి)

- 7) As there are 10 varieties of socks, you should take out 11 socks, so that you will get at least one minimum pair.
- 8) You take 2 red, 4 yellow and 5 each other colour (total 46) socks. Then if you take one more sock, you are sure to have 6 socks of at least one colour. That is 3 pairs. Total 47 socks.
- 9) The end figure is 294-2. If you have calculated till the end as instructed in the question, and even if your answer is wrong, don't worry. We appreciate your patience.
- 10) I require 2 assistants. Enough.

First day we 3 eat from the first assistant. He is carrying food for 4 people. Hence, with $\frac{1}{4}^{\text{th}}$ food (that is required for his return journey) he is sent back.

Second day, I share from my second assistant's food. I send him back with $\frac{1}{2}$ food that is enough for his 2 days return journey.

Now it is the third day. I am left with 4 days food, that keeps me alive till I reach the treasure island.

If only (మార్పు చూడండి) any island in the jungle (!) really exists.

May be millions worth of gold is waiting for me there. I cannot enjoy it. I die. I die because I am a fool not to think about food for my return journey.

- 11) 8 types of extra tickets: To and fro: Delhi - Farah (2), Agra - Farah (2), Mathura - Farah (2), Gwalior - Farah (2).
- 12) $N = 8$ and $X = 5$.
- 13) If the prince mixes all black and white pearls equally into two vases, the chances of the girl picking the two whites would be 50:50 only.

The best way is to put one white pearl in the first vase... and all other 199 pearls in the second vase.

Then the probability of taking out a white pearl from the first vase is 100%.

And the probability of grabbing a white pearl from the second vase is $\frac{99}{199}$. Thus the total probability of grabbing a white pearl is $\{1 + (\frac{99}{199})\} / 2 = \frac{298}{398}$ (approximately 74.9%).

This is the best combination I can think of.

- 14) If you say you require 4 rats, you are average intelligent. If you say 3, you are intelligent. If you can work out with 2, you are brilliant.

The poisonous bottle can be identified with 2 rats.

Let us name the rats A and B.

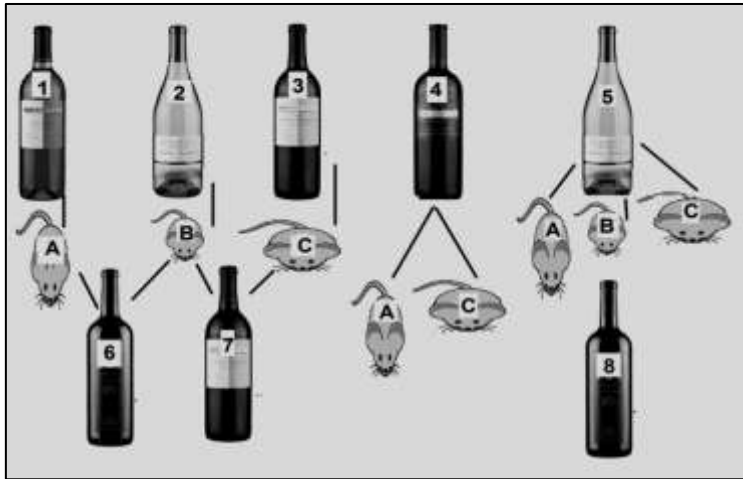
A is given a drop from bottle 1, B from bottle 2. From 3rd bottle one drop is given to A and B each.

If A dies bottle 1, B dies bottle 2, and if both die third bottle is poisonous. And of course, if no rat dies, the fourth is the odd one.

- 15) Based on the same principle above, 3 rats are required. Here is rat-wise and bottle-wise combination: (మార్పు చూడండి)

A -1, B -2, C - 3. AB - 4, BC - 5, AC - 6 and all the three A,B,C rats will be given one drop each from bottle 7. If A dies bottle 1, B bottle 2. C bottle 3, if AB both die 4th bottle, if all the three die bottle 7. If no rat dies the last bottle is poisonous.

- 16) (మార్పు చూడండి) The king requires ten rats. If 2 rats are required for 4 (2^2) bottles, 3 for 8 (2^3), 4 for 16 (2^4), 10 rats are necessary for 1024 (2^{10}) bottles.



- 17) Water floats like bubbles or spheres on-board the International Space Station. However the water will cling to a surface until it is dislodged. This means that tears start to form bubbles around your eyes as the weightless environment is not causing your tears to fall. This sounds really cool but it can be dangerous.

-000-

CREATIVITY SKILLS

- 1) Tooth paste was invented in 4th century by Egyptians.

Do you know that the Romans used human urine in their toothpaste formulations? Since urine contains ammonia, it was probably effective in whitening teeth.

But anyway, it is not the question here.

Colgate and Pepsodent are rival manufacturing companies in the market. They fight in courts, spend lots of money on advertisement for promoting their products.

Through the strong promotion by the media i.e. TV, radio, news paper etc. Colgate is rightly successful to capture the mass market. It is very popular among young kids just because of its perfect promotion. Colgate - Palmolive is promoting kids products by labeling the cartoon Characters like *Looney tunes*, *Barbie*, *Barney* and many more which are being loved by the children. It also educating Children by slogan “*Stronger say bhe Strong, Mera Colgate*”.

Pepsodent connects directly with kids and their parents. It has always worked in the direction of an overall awareness of dental health.

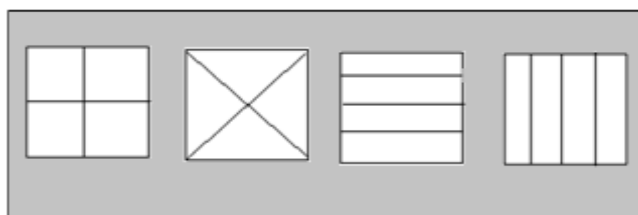
Here is a question asked in business executive selections last decade.



A tough competition is prevailing between two companies. Company A promotes its incompetent Assistant General Manager to the post of Deputy GM, ignoring three other intelligent and efficient executives, who are envious about him and thoroughly disappointed. To add salt to their wound, the company elevates him to the post of General Manager within one year. He resigns the job later.

Give two reasons for this odd management-strategy.

- 2) Here are 4 squares, divided into 4 equal and *identical* parts in different shapes.



Can you make few more?. If you are intelligent and can understand the technique, you can make thousands. Try.

- 3) A king wanted more warriors for his kingdom. He proposed to increase the male population compared to female. Hitherto it was 1:1. He set down a law that required every couple to continue having male children until they had their first female baby, and then to stop having children further.

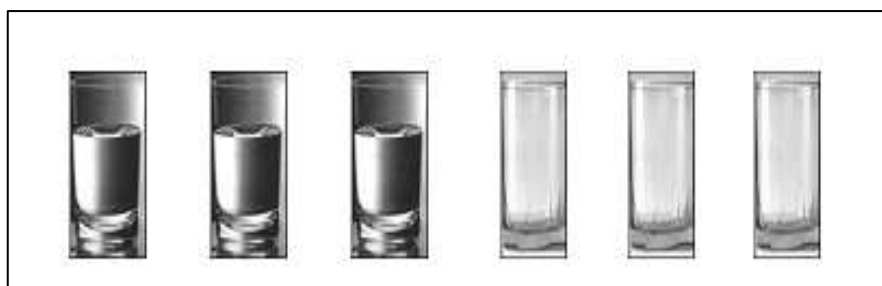
Excellent idea.

First: Male baby? Continue for another... Second male? Go ahead... Third female? Stop. The family had now two males and one female.

If your first baby was female, you should not take risk of another baby, as there was a possibility for the second one also being a female.

The idea of the king appeared to be logical. After two generations what would have happened? What would have been the growth of males compared to females? Double? Triple?

- 4) The empty glasses are to be in between the watered glasses. You are allowed to touch and move only one glass. Try.



- 5) With 12 match sticks we give you this equation: $VI - IV = IX$. Can you make this a valid equation by moving just one stick? Here is one example. $V + IV = IX$. Can you try one more?
- 6) Who invented scissors?

- 7) Suppose $a = b$. I prove that $a + b = b$ in just four steps.

Step 1: $a = b$. Multiply both with 'a'.

$$a^2 = ab.$$

Step 2: Subtract ' b^2 ' from both.

$$(a^2 - b^2) = (ab - b^2).$$

Step 3: Expand the above equation.

$$(a + b)(a - b) = b(a - b).$$

Step 4: Remove $(a-b)$ from both.

$$a + b = b.$$

Are you shell-shocked ? How is this possible? Think a while.

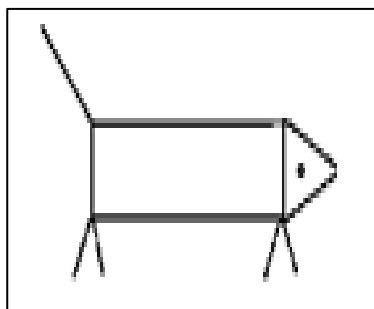
Find out where (in which step) I went wrong?

In which step lies the mistake?

- 8) Suddenly two lunatics jump out of a van, blind-fold you and you are driven for miles before being taken into a house and your blindfold removed.

You find yourself sitting in a dark, damp, room. There is a small table in front of you containing 11 matches and a small ball of paper.

One lunatic leans forward and arranges the matchsticks and paper ball into a lion-like shape as shown in the figure.



He then tells you "...Can you make the dog look in the opposite direction by moving just two of the matchsticks and the paper ball? If not, I will kill you...and one thing more... the tail of the lion must remain pointing up".

Can you escape with your life? Show the diagram, how you change the head position?

9) You are shown 3 closed doors in a game show. A prize is hidden behind 'one' of the three doors. You are asked to select a door. Before you open, the host opens one of the remaining 2, which is empty. Now he gives you an option, whether to stick on to your original selection or change your option to the other one. What would you do among these three?

- Change your option to the other one?
- Stick to the original?
- Think that it is anyway a *lottery* between the two closed doors?



10) A boy loves a girl from in a hamlet of dangerous tribes.

The hamlet is on an island, surrounded by a lake, full of man-eating crocodiles. A long one-kilometre wooden bridge connects the village with the outside world.

A guard, appointed by the villagers, stays on the middle of the bridge, exactly 500 meters from either side.

He sleeps only for one minute per each hour. He will not let any outsiders enter into the island without the permission of the villagers and pacifies strangers to go back.

He is a perfect shooter. If the intruders try to cross the bridge without his notice, he doesn't mind shooting intruders even from a distance of 500 meters., The boy could somehow enter the village but struck out there. It takes 1 1/2 minutes for him to cross the bridge. How does the boy go out without getting caught?

11) During a visit to a mental asylum, a visitor asked the Director what is the criteria that defines an insane patient to be joined in a mental

hospital.

“Well,” said the Director, “We fill up a bathtub. Then offer a teaspoon, a teacup, and a bucket and ask the patient to empty the bathtub. Okay...? Here’s the test:

1. Would he use the spoon?
2. Teacup?
3. Or the bucket?

Depending on the answer, we decide”.

“Oh, I understand. A normal person would choose the bucket, as it is larger than the spoon...” said the visitor.

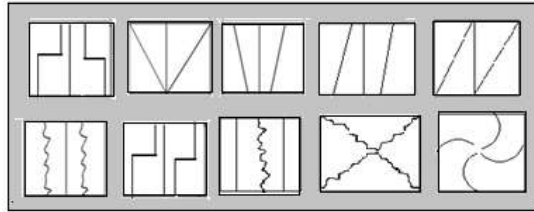
“That’s how we put people in the mental hospital” smiled the superintend. Why he smiled?

- 12) You know what a French kiss is. It is a deep kiss on lips for more than a few seconds or even minutes. What is an English kiss?
- 13) A particular month’s 1st is on Sunday. What day would it be on 13th? (మార్పు చూడండి)
- 14) How many times does an average person laugh per day? 5/10/20/30.
- 15) How many people in this world do you think have never made or received a phone call in their life time? 5% / 10% / 25% / 75%/
- 16) What might be the price of the costliest wine bottle on earth now available? Less than 5 lacs / 5 - 10 lacs / 10 - 100 lacs / None of these.

-o0o-

ANSWERS

- 1) Company B is desperate to win over Company A, by luring the top executives of the later. It head-hunted the person from company A for a big salary. Thus the intelligent 'A' company could burden the rival with a dud. The second reason is more important. ~~The said~~ Company A could get rid of the incompetent executive without any terminal compensation. If the company itself fires the official, it has to pay heavy compensations. Two birds at one shot.
- 2) Four identical shapes in a square.



- 3) No. Sorry. It didn't happen the way the king thought.

Suppose there were 100 couples in the country. Fifty per cent of couples, after giving birth to 50 female babies would stop further, owing to the king's mandate.

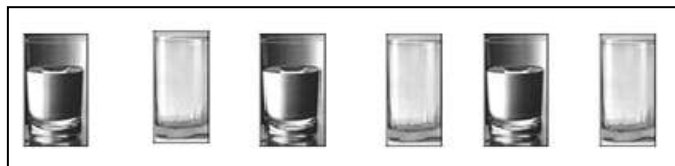
The parents of 50 male babies would continue for second pregnancy. But don't forget that the probability of male and female ratio was 1:1. They already gave birth to one male baby. Hence more than 25% of them give birth to female.

Now there would be 25 male babies for 75 females for the next generation.

The ratio would fall further in the next generation.

Hence, in all probability the next baby would be a girl. That way, after two generations, the female population would be more than double, shattering the plans of the stupid king.

- 4) Empty the second glass into the fifth glass and keep it in its place.

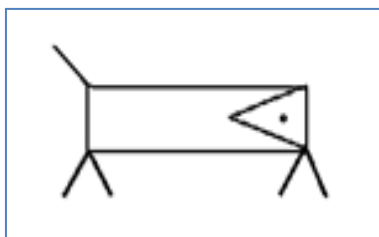


- 5) $VI + IV = X$.

- 6) Leonardo Vinci.
- 7) The mistake is in step 3. if $a = b$, $a - b$ is zero. Any number multiplied by '0' would result in zero. You cannot say that $4 = 5$ just because $5 \times 0 = 4 \times 0$.

There is one more simple answer to this problem. If 'a' is zero, 'b' is also zero. $0 + 0 = 0$. First answer is common sense, second answer is non-sense.

- 8) Your task is to make the dog look backwards in the opposite direction, and still have his tail pointing up. Here is the trick. Just move the two match sticks that form the face part of the lion. See the diagram on below.



Second alternative is to turn the table. It gives the below effect.

- 9) You have to opt for changing the doors. Here are the reasons.

When you pick up a door, there's a $2/3$ chance that you're wrong (66.7%) and $1/3$ that you are correct. What you are really being asked here is: whether the odds are better with your first choice, or with any of the other two. Remember that the host "knows" where the prize is. He will always open the one door *that anyway doesn't contain the prize*. So if you were wrong (66.7% chance), it is better to switch to another door that the host keeps closed with 50% failure (of 66.7 i.e. 33.3%).



If you shift, on the advise of the host, then the chance of failure is 33.3% only.

(Another way to look at it is this: Consider that there are 100 doors. You pick one. Before you open it, the host opens 98 of the 99 remaining doors (that he surely knows that they are not the correct doors).

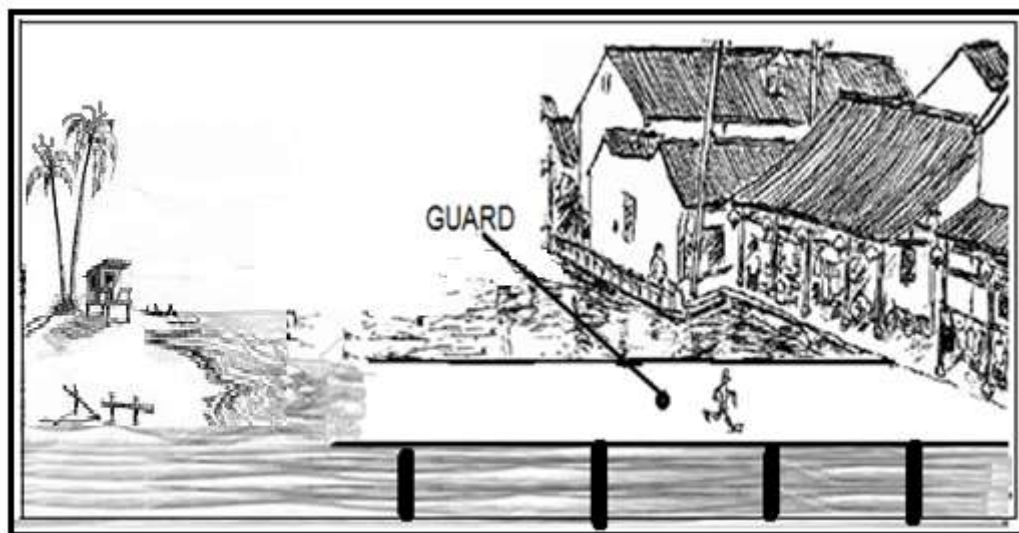
There's 1% chance you guessed correctly, but the host is better positioned than you. So you better change your guess and shift

to the other door to reduce the *probability of the failure*.

- 10) The guard sleeps only for a minute. In one minute, the boy can walk up to half the distance only. The guard can shoot from any distance.

Hence the boy plays the trick.

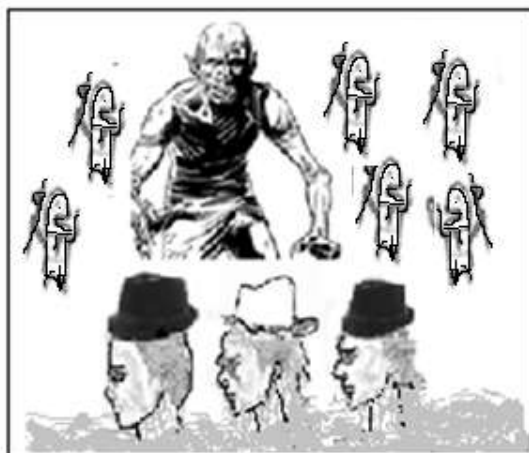
While the guard is sleeping the boy crosses the half way mark, does not go further but *returns*. The guard, awake from sleep finds the boy. He thinks that the boy is coming from outside world, pacifies him and sends him back.



- 11) "This is the benchmark to judge whether a person should be joined in a mental asylum or not" feels the director. Is not a simple common sense that, water can be released through the base-hole of the tub.
- 12) A "French kiss" in the English speaking world is known as an "English kiss" in France.
- 13) Friday thirteenth.
- 14) On average a person laughs ten times per day.
- 15) Approximately 50% in this world have never heard or touched a phone, leave alone a cell phone.
- 16) None of these. The costliest wine bottles was sold in a recent action for around 2 crore rupees.

BRAIN EATING CANNIBALS - MURDER MYSTERIES

- 1) This question tests your intelligible inference. Close your eyes, imagine the situation, step into the shoes of each of the three persons, and draw conclusions to find the solution to save the life of these three.



A, B, C are captured by cannibals in a jungle. These 3 men are given a chance to go free with their lives. They are buried one after other in such a way that the last man (C) can see the backs of the front two, the middle man (B) can see the back of the front man (A) and the front man (A) can't see anybody. The men are shown four hats, two *black* and two *white*.

One hat is placed on each man's head and the fourth hat is concealed. The men don't know the colour of the concealed hat. They are told that, if they can guess the colour of their hats, they can go free. Time passes. Finally, the middle man guesses his hat's colour correctly. Afterwards the remaining two. How could they?

- 2) While trekking through a remote jungle I was captured by cannibals. The chief told me, "You may now speak your last words. If your statement is true, we will burn you in flames and eat grilled mutton. If your statement is false, we will fry you in oil and eat Roast mutton". I thought for a moment, and made my statement. Perplexed, the chief realised he could do nothing but let me go. What did I tell him?

- 3) 3 Sadhus and 3 cannibals are on either side of a river, and there is only one boat on the side of cannibals. The boat can carry maximum two persons at a time. Both cannibals and sadhus are to go to the other side. They both want to co-operate each other, but the sadhus know that cannibals are cunning and should not outnumber the Sadhus at any point of time (on either side of the river).



In other words, if 2 cannibal are waiting on one side of the river, and if a single sadhu arrives, they kill and eat him. Anyhow a solitary cannibal cannot harm a lone Sadhu.

How do you plan '*minimum number of trips*' in which all can reach their destination without any bloodshed?

- 4) This appears to be complicated puzzle, but once you know the clue it is easy:

10 war prisoners including the minister of the country are to be hanged next day. The rival king says he will give a chance to the prisoners to try their luck. His offer goes like this:

"Each prisoner is blind-folded, assigned a hat, either black or white at random, and instructed to stand in a single-line. Then the blind-folds are removed. Now each can see the hats in front of him. They don't know the colour of their own hat or hats of those standing behind them. At this point, starting with the last prisoner, each one must say only one word... either "black" or "white". Other sounds like murmur, change of voice, mimicry, cough are strictly not allowed. The person who utters correctly is released, and person with wrong answer will be killed *on the spot*".

After the offer, the intelligent minister tells his colleagues that they can formulate a plan where-by 9 of the 10 prisoners will *definitely* survive and the last person, who answers first, has 50/50 chance of survival. What is the plan?

- 5) By your experience with solving the above puzzles, here is a very simple question. Help this mother with your intelligence to crack a difficult puzzle and save her child.



A crocodile living in Nile grabbed a child into the water. The child's Mother begged the predator to give him back. The crocodile could not only talk, but was also a great sophist, and so he stated: "If you guess correctly, what I will do with him, I will return him. However, if you don't correctly guess his fate I'll eat him."

What statement should the mother make to save her child?

- 6) After cannibals and cruel animals, let us go for murder mysteries.

A police officer was about to order in a restaurant and heard a loud voice from the roof top of the restaurant "I never... never loved you bastard". (మార్పు చూడండి)

A pistol sound shattered the silence of the building, followed by a thud sound of a person falling down. He rushed to the roof-top. He found a lady on the floor in a pool of blood, with pistol by her side.

There were three people: a cricketer, football player and a tennis player.

The officer arrested the tennis player, without asking a single question.

How?

- 7) A woman comes home from shopping, changes her dress and enters the bedroom.

There she finds her husband hanging motionless. Looking at the lifeless husband, she hysterically bursts into tears, rushes to the phone, calls on the a police officer and goes with him for late night movie show.

What's happening?

- 8) It was the first day of the college when a young girl was found dead on the college premises. The police narrowed down four suspects.

The Dean claims: I was in my office whole day.

Maths Teacher: I was giving grades to students.

Peon: I was bringing the mails.

Science asst: I was cleaning the apparatus. Who was lying?



- 9) On a rainy Sunday morning, the owner was killed. His wife tells the police all that she knows. Cook was catering breakfast, the maid was cleaning and the butler was getting the mail. Another servant was engaged in laundry and the old man was watering the garden.

The police immediately arrested two persons who are responsible. They spilled the beans. On their confession, they arrested the house owner's wife also. How could they get the doubt and who are the criminals that helped the wife?

- 10) Police received a call on a chilly night at 2 a.m. They rushed to a fortress like bungalow. The owner, an old man, was found dead in his bedroom. The maid, who was working with the owner since several years, was weeping inconsolably. He told the police "...as I was going to my outhouse after completing my work, I noticed his study-light was still on and I decided to look in from the outside to see if he was in there still awake".

"Have you gone in and saw?" the inspector enquired.

"No. I completed my work in the kitchen. There is a way, thorough the garden to my place. I then found the light from his bed roo. I saw through the window from outside".

"But there is heavy fog even now..." interrupted the inspector. The time was around 4 a.m. then.

"Yes sir. There is heavy fog" admitted the maid, "...there was frost all over the window. I had to wipe it away to see inside. That is when I saw his body. So I kicked in the front door to confirm. My suspicion about the foul play was right. I called you the police immediately."

"Arrest this maid" ordered the inspector. Which clue helped the police to know that maid was the killer?

- 11) A pregnant wife and her husband were in their car on the highway and they ran out of gas. So, the husband went, and his wife locked all the doors, and to pass the time, she turned on the radio.

She heard on the news report: "There is a murderer on the loose, people saw him last on the highway number 14. He is 7 foot, wearing all black, be aware. Contact the police immediately".

The wife got very scared, double checked the locked doors.

Sometime later, the husband returned and found his wife dead, murdered.

All the doors and windows were still locked. No windows were broken. No scratches on the car or anything.

How did the murderer kill the wife?

- 12) A police team enters a crime scene where a dead body of an old man lies on the floor with blood oozing.

The victim is holding a gun and a tape recorder lies by his side. They play the recorder: "I am tired of this life and hence decided to relieve myself from the worldly pains".

A gunshot follows the message.

The teams starts a murder investigation, and soon finds the murderer. The question is not about the murderer and how he killed him. How did the police team come to the conclusion that it was a murder? (మార్పు చూడండి)

- 13) A man had been walking along the pathway at Gandhi Street when he was suddenly shot in the stomach. There was a witness to the murder, who was asked to tell the story right from the beginning.

"Well," said witness, "I was just hanging around the park when I saw this man walking along the pathway. Suddenly, a guy came up from behind and shot him".

The policemen asked him to give a description of the murderer.

"He had a brown hair, blue eyes and a black shirt."

The police further investigated and arrested the witness, who confessed his crime. How did the police get doubt on the witness?

- 14) Imagine, at midnight you are reading a horror book, and suddenly a serial murderer enters your room and rises his pistol

towards you. What do you do?

- 15) Anuhya was sitting at her study table, home alone, on a cold and stormy night. Suddenly a masked man entered from the back door, grabbed her from behind and growled "Give me all your money!".

"There is no money h- h- here...! Please let me go" cried Anuhya.



"Don't lie!" screamed the increasingly agitated man.

Suddenly the phone rang, alerting both of them.

"People will get suspicious if I don't answer the phone" said Anuhya.

"Alright, but No funny business" said the intruder and let her take the call. She picked up the phone.

"Hey. How's the revision going?" said the caller.

"Hey Anna. Thanks for the call. Hey you know those Science notes I lent you last week? Well I really need them back. It would be a great help to me. It's an emergency, so if you could give me them tomorrow it would be great. Please hurry in finding the notes. I need to get back to my books now. Bye" said Anuhya and hung up the phone.



Although more than a bit confused by her conversation, the intruder said, "It was wise of you not to say anything, now tell me where the money is kept...".

"It's...in my dad's room. The first room on the right. Third drawer," said Anuhya .

"Show me!" screamed the thief. She walked slowly in silence. All of a sudden, they heard police voice. The intruder froze. He ran to the nearest window and jumped out of it. Anuhya ran outside in time to see the intruder being escorted into the van. "Smart kids," said the policeman.

what did the brave girl do and how could her brother save her?

- 16) A husband and wife have a verbal fight in the theatre while watching a movie. In a fit of anger, the husband kills his wife.

He thinks for a while what to do, takes the body out of the theatre, and carries it to his house in his car. He tells the police that it was a natural death.

Confirming the time of death through post-mortem, and taking the evidence of car park at the cinema theatre, police arrest the husband. The question is..... how the husband could kill his wife amongst many audience and bring the body out from to his car?

Really tough question. Isn't it?

- 17) This is not about cannibals, but more dangerous and suspicious husbands. Three married couples (six persons) have to cross a river. The boat can carry only two.

Constraint is that no woman (unless her husband is also present) can be in the presence of another man. In other words either on boat or on river bank, a woman can be with another single woman or with her own(!) husband. A woman should not stay with another couple also.

Solve the problem of these doubtful husbands and suggest a way so that they can go to the other side with *minimum number* of trips?

- 18) A film crew were ~~to cross a desert while~~ going to a shooting location. Their flight collapsed in a desert, killing the pilot and crew of the aircraft ~~and film~~. Hero, heroine, heroine's brother and villain survived.

Villain decided to kill the hero in the desert, as heroine who initially loved him in real life, now switched her loyalties towards the hero. He poisoned the water in hero's sack (only hero had water).

Heroine's brother also wanted to kill the hero, who cheated his sister. He made a hole into the water sack, not knowing that it had been already poisoned. The water spilt out.

Few days later hero died of thirst in the desert. Who was the murderer and who is to be punished? brother or villain?

- 19) Can you hold your breath and kill yourself?
- 20) what is the only animal other than human being that enjoys sex, and has it for pleasure.

ANSWERS

- 1) This puzzle is to be worked on two steps.

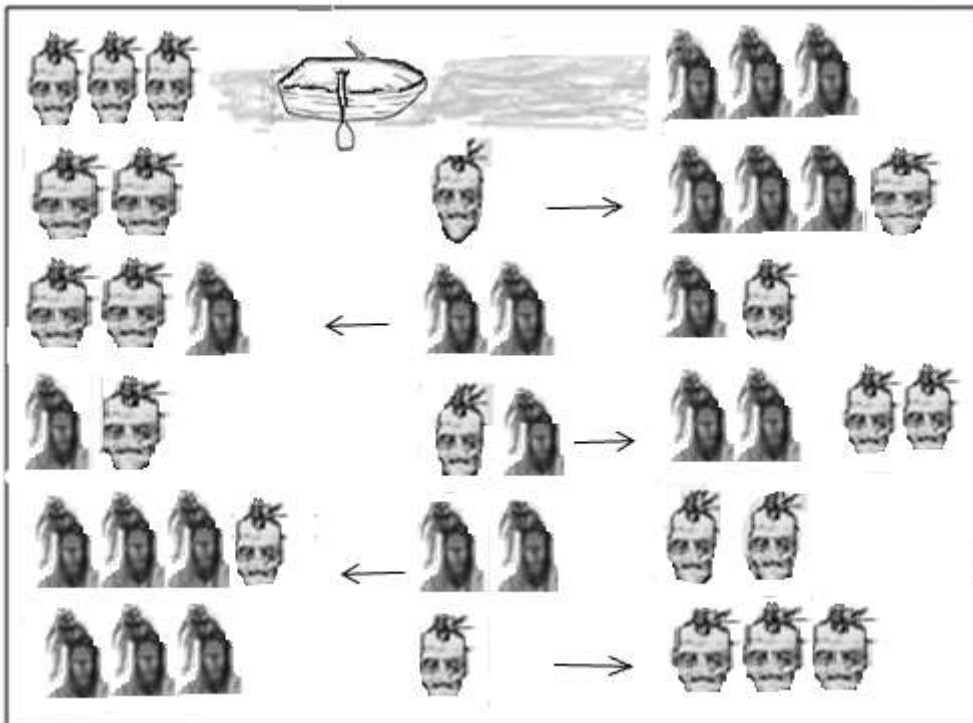
First step: The last person can see the front two hats. If *both are white* or *black*, he would automatically know the colour of his hat, as there are only two types of colours. But, since he is silent, it is inevitable that A and B are having different colours.

Second step: As C is silent, B knows that C is seeing two different colours of hats. Now B can tell the colour of his hat which is discimilar to that of A. when he tells it, C automatically knows his hat's colour. That's how, they escape.

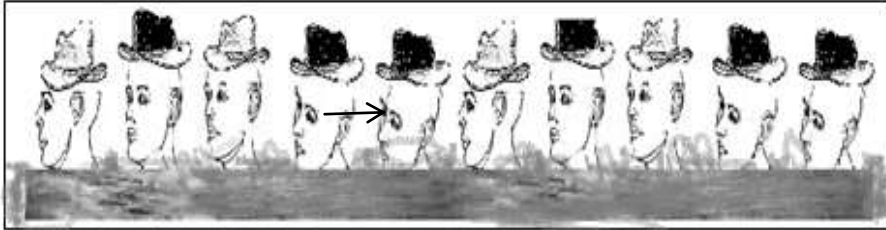
- 2) "You will boil me" I said to him. The chief was confused. If he boils, my statement becomes true and he cannot boil me. If he burns me, my statement becomes false and he cannot burn me. Hence he left me loose.

- 3) Three cannibals and three sadhus are on either side of the river, as shown below. The boat is at 'cannibals' side.

First, one cannibal goes to the other side and two sadhus come to this bank. Then one cannibal and one sadhu go to the other side and two sadhus come to this end. The remaining one cannibal go to the other side, without any bloodshed.



- 4) The minister suggests his people to assign value '1' to Black colour, and '2' to White colour. The last prisoner (the minister himself) shall count the values of the 9 hats before him and if the total is an even number, he shall say 'white', or if it is an odd number 'black'. Minister takes the risk of 50-50 chance, but others are **sure** to be freed.



Here is the example: Minister counts the value of hats. Suppose he finds 3 Black and 6 white hats, the value is $(3 \times 1) + (6 \times 2)$, that is 15.

It is an odd number and hence he says his hat colour is "Black"., he is fortunate to be saved If correct or is killed if wrong.

Now the guard in front of the minister knows that the value of hats (including his own) is 15. He calculates the value of remaining 8 hats before him.

If it is 13, his hat is 'white' and if it is 14, his hat is 'Black'.

Too complicated? No. It is easy once you comprehend the logic. Even if there are 1,000 prisoners and 1,000 hats, you can know the colours of every person's hat except the first (last) one.

- 5) The mother should say: "You will eat my child".
- 6) Tennis player was the only male among the three suspects.
- 7) She is a widower.

On entering into her bed room, she sees her husband's photo hanging to the wall.

The police officer is her brother, comes to console her and takes her to the movies to change her mood.

- 8) Maths teacher must be the culprit. How can she give grades on the first day?
- 9) Butler, who received mail on Sunday, and gardener who was watering the garden on a rainy day are the culprits. The wife

fabricated the story along with those two people.

- 10) Frost forms on the window from inside. Maid could not have wiped it off to notice the old man’s body inside.
- 11) There can be two reasons. It’s a open top car. Or she might be pregnant, and died after delivery in the car. Second reason appears to be more logical. First one is stupid.
- 12) If the man killed himself, he would not have been able to rewind the cassette. Thus it is clear that someone else killed him.
- 13) When a person is shot from behind, how could the dead have the wound on the front? The witness was lying.
- 14) Stop reading the book and imagining. Go to bed and sleep.
- 15) She used the mute button. Brother heard “Help... emergency- please- Hurry” Sensing something fishy, he called the police.
- 16) The couple were watching the movie sitting in their car in a drive-in-theatre.
- 17) Let us name A, B and C as husbands, and wives as a, b and c.

First A goes along with his wife ‘a’ and returns back to send both the ladies to other side. Then his wife b takes the boat to the other side. For further details see the chart below.

TRIP	STARTING BANK	GOING / COMING	END BANK
1	Aa Bb Cc	Aa →	Aa
2	Bb Cc	← A	a
3	AB C	bc →	abc
4	AB C	← a	b c
5	Aa	BC →	b c
6	Aa	← Bb	Cc
7	a b	AB →	Cc
8	a b	← c	AB C
9	b	ac →	AB C
10	b	← B	Aa Cc
11		Bb →	Aa Bb Cc
			FISNISH

Complicated and laborious journey. But there is no other way with suspicious husbands... even in life journey also.

- 18) This is a very complicated legal case. Many arguments go 'for and against' the accused. Let us visualise a scene.

I put a bomb in someone's house and cause it to detonate 5 minutes after he's supposed to get home.

But that person dies in a car accident on his way home.

I will not be blamed for his death, but I am certainly an accused in an 'endeavor to homicide'. Same justice applies to the case we are discussing.

In the case that we are discussing, Villain would not be blamed for Hero's death, even though he planned to kill him.

Here, the cause of death was thirst.

And Hero's brother is the culprit.

Villain can be tried for 'attempt to murder'.

But there is one more thing. God is a good judge.

As hero was the only person possessing water, and as he died from thirst amidst desert, we can conclude that all the other three also must have perished from dehydration. So there can't be a trail.

Though heroine is nothing to do with the crime, it is called 'collateral damage.'

Nature justice is beyond law.

- 19) No. never. You can not hold your breath and commit suicide.

- 20) Dolphin.

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REASONING SKILLS

- 1) The office of an employee is located in a hilly area between two bus stops A and B. Though her office is nearer to stop B than A, she 'passes' first stop, and gets down at second (A) stop and *walks back*. She has no work (like purchases, friend's house etc. nearer to bus stop A but she does the same daily. Surprisingly, while returning home in the evening, she takes on at stop B. Why?
(మార్పు చూడండి)



- 2) A perfectly healthy office-going girl puts a full plaster on her arm when she was not injured in any way. Give at least four reasons.
- 3) Unable to bear the passenger's non-stop talking, the taxi driver said that he is deaf and cannot hear anything without an aid machine. The passenger kept quiet but realised that the driver told her a lie when got down. How?
- 4) A man walked down a lonely country lane with no streetlights. There was no moon. He was dressed all in black. Suddenly he heard a speeding car turning (మార్పు చూడండి) towards him from the side lane. The car also did not have its headlights on. There was no foot-path or room for him to step out of the way and avoid being struck by the car. But yet, the driver of the car screeched to a halt just in time in fraction of a second. How could the driver see?
- 5) Preeti Zinta works in a circus company. She buys a pair of shoes, goes to work and is hospitalised. Give two alternative reasons.



- 6) Allu Arjun lost his way, while shooting in the woods. All he had was the clothes on his body, shoes and a single match. He stumbled around till midnight in the dark before coming across a house. Luckily it was unlocked. He entered the house. There was a kitchen, stove, dry wood, oil lamp and a candle. As said, he had only a single matchstick. What do you suggest him to light first?
- 7) A girl was reading a book at night. Suddenly the lights go off. There was no lamp, no candle, nothing. Yet she continued to read. How?
- 8) If it were Tuesday today, what would be the 100th day of the week from today?
- 9) In a remote village in German occupied Afghanistan, there are only two hairdressers, Adolf Hitler and Bin Laden.

All the people in the town go to them for their haircut. Laden's shop is quite untidy and he has a shabby haircut, while the shop of Hitler is quite neat and clean and he is sporting an excellent haircut himself. You have to have it from one of them. As a foreigner, whom do you choose,

Adolf Hitler or Bin Laden?

- 10) Three men - Laxmana, Rama and Lal - are married to Sita, Bhavana and Urmila, but not necessarily in the same order. Wife of Laxmana and husband of Bhavana are playing a game with Sita and Urmila's husband. No wife is partnering her own husband. Rama is not playing the game. Who is married to Rama?
- 11) Three intelligent monkeys were to cross a solid river that was wide and deep. They would die if they don't go to other side trees as it was freezing cold. They didn't know to swim and there was no bridge. However, they crossed it in just a few minutes. How could do they do it? Was it their intelligence? Or just they took an adventurous trip?
- 12) Michel Jackson was doing a dance rehearsal for a film with his crew, and his members were in a straight line. He was 4th from back and 4th from the front. How many crew members were performing with him?
- 13) A lady listened to the continuous ringing of phone bell while reading a news paper, but does not bother to rise from the chair. Tell at least five reasons. The reasons may be humorous or even stupid also, but this riddle is to test your creativity as to how fast can you think of various probabilities.

- 14) A person wanted to purchase a talking bird, went to an auction and expected the price to be thousand rupees. But the bid went up to ten thousands. There were no other competitors. Still the bid rose to such a huge amount. What would have happened?
- 15) Two cars proceed to Secunderabad from a same point at Hyderabad with same constant speed and on the same route. There are no road blocks, repairs, accidents, traffic jams or stoppages in between. One car reaches there after 5 minutes. Why?
- 16) I gave 50 rupees to my daughter and asked her to purchase any ONE thing, that
- I can eat
 - She can drink
 - Our cow in backyard can eat, and
 - My daughter can plant in the front yard.

Surprisingly she brought it without asking further questions. What is that?

- 17) Police solved a case wherein they found that one Mr Subrabanyam was the culprit, and was now playing cards in a particular hotel room.

They knew only his name and nothing else. Neither his identity nor photograph was available.

When they reached the hotel, four people were inside playing cards, one was a postman, another foot-ball player, third was a medical practitioner and the last was one was a professional thief.

Police arrested the postman. Even without calling the name, they straight away went to him and arrested. How?

- 18) You are a bus driver.
- At the first stop of the day, 8 people get on board.
 - At the second stop, 4 get off, and 11 get on.
 - At the third stop, 2 get off, and six get on. At the fourth stop, 13 get off, and 1 gets on.
 - At the fifth stop, 5 get off, and 3 get on.
 - At the sixth stop, 3 get off, and 2 get on.

What is the colour of bus driver's eyes?

-o0o-

ANSWERS

- 1) Her office is on the road to a hilltop. Second bus-stop (A) is at a higher plane. The woman finds it easy to go down the road to reach her office in the morning, and while going she prefers first stop (B) further down, as it is easier to go to catch the bus home.



- 2) One: She went late to the office on that particular day and covered her act by lying that she met with an accident.
 Two: She wanted a long leave.
 Three: She wanted to avoid table/ typing work.
 Four: She was claiming false medical claim.
- 3) How could the driver take her to the destination if he is deaf?
- 4) It was daytime.
- 5) She works as a 'target' in the circus, wherein the shooter throws knives around her. The new shoes have higher heels than what she normally wears, and the shooter misjudges his aim. Second reason may be, the woman is a tight rope walker with bare-foot. She misses her regular walking habit with new shoes; and though she is bare footed, has not adjusted on the ropes.
- 6) Match stick.
- 7) She was blind and reading through touch of hand (braille).
- 8) If today is Tuesday, 100th day from today would be Thursday.
- 9) I go to Bin Laden because, his work on Hitler is better.

- 10) *Sita is married to Rama. "Laxmana's wife and Bhavana's Husband play Sita and Urmila's husband at bridge"* means that Laxmana is not married to either Bhavana or Sita.

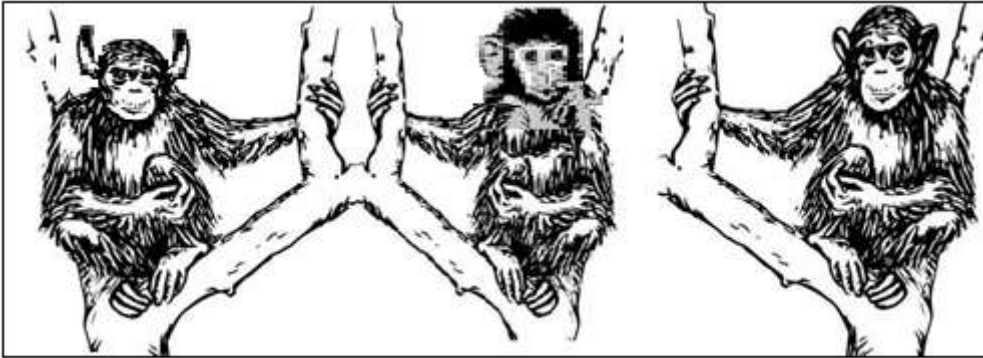
Thus, Laxmana is married to Urmila.

As Rama does not play bridge, Bhavana's husband must be Lal.

Hence, Sita is married to Rama.

If you ask, "Should you think so much, to know this simple fact?" there is no answer from my side ☺.

- 11) No intelligence. The river was frozen and solid. The monkeys simply walked on to the other side.

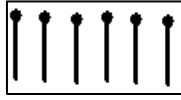


- 12) There are six crew members. c- c - c – M - c – c - c.
- 13) The talking bird wanted to help its owner and increased its price by bidding itself with human voice.
- 14) Five probabilities. 1. She has some problems like back pain etc. 2. It is her mother-in-law's mobile phone 3. The ring-sound is from the neighbour's flat. 4. She is deaf. 5. She was angry and it is from her husband.
- 15) Because it started 5 minutes late.
- 16) Watermelon. I can eat, she can drink the juice, my cow can have its rinds, and my daughter can plant the seeds.
- 17) You have already solved this type of puzzle. He was the only male in the group playing cards.
- 18) Whatever colour your eyes are. You are the bus driver..

SIMPLE COMMON SENSE

- 1) How many days can you be without sleep?
- 2) Two teachers differed in their opinion when they saw an answer sheet wherein it was written $81=9 \times 9$. Why?
- 3) What would you do if you find a fire station burning?
- 4) What would you do if you find a fire station burning where there is no nearby fire station?
- 5) How could a baby fall in a twenty-story building onto the ground and live?
- 6) On which side of the cat is the greater fur (hair) contained?
- 7) What is that you can hold it only with your right hand, but not with your left?
- 8) I want to pluck a mango from the tree. A peacock is sitting just by the side of the fruit. How can I get the *same* fruit without disturbing the bird?
- 9) I inserted seven doughnuts to a rope and tied the two ends of it. I wanted to eat a doughnut without cutting the rope or breaking doughnut. How?
- 10) An Air India plane flying from Lanka to China carrying Japanese tourists crashes exactly on the border between India and Pakistan. If nobody claims them, in which country do they bury the survivors?
- 11) A is the father of the father of B's son. Who is A to B?
- 12) How can a husband be behind his wife, when she is behind him?
- 13) A dog is tied to a 10 meters long rope. A bone is 15 meters away. The dog got the bone. How?
- 14) "What is today?" I asked. "If tomorrow is yesterday, today is Saturday" he replied. What is today?
- 15) A beggar's elder brother died. But the dead person has no younger brother in the profession of begging. How?
- 16) Why do Indians eat more rice than Japanese do?
- 17) Which word in the dictionary is spelled incorrectly?

- 18) What is at the end of a rainbow?
- 19) This puzzle is not as simple as it appears to be. Requires lots of thinking. Take six matches.



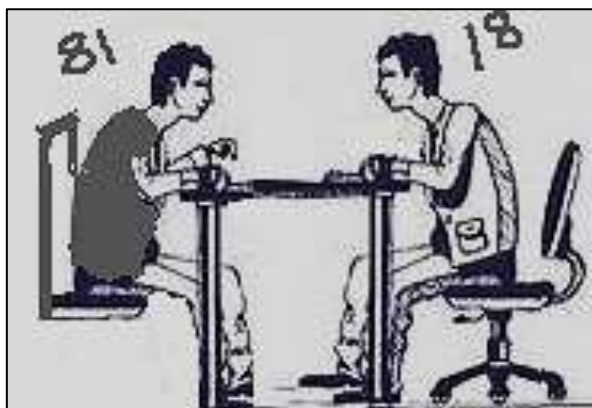
Place them in such a way that each match is in touch with all the other five matches. If you cant imagine, try practically. Don't rush to see the answer.

- 20) When I was on my way to the market along with my wife, I came across a family comprising father, mother, two sons and three daughters and a puppy. How many male members are going to the market?
- 21) A beggar collects 7 cigarette stubs and makes one artificial cigarette from them. How many cigarettes can he smoke if he gets 49 stubs?
- 22) What gets wetter and wetter the more it dries?
- 23) Anusha went to America accompanying her husband Srinivas twice, but Srinivas has taken only one trip to America with his wife Anusha. How is this possible?
- 24) A good pot without any holes is kept right under a running water tap, but it does not get filled up. Why?



ANSWERS

- 1) Any number of days, as you can sleep in the night.
- 2) They were looking at the answer sheet from opposite sides of the table.

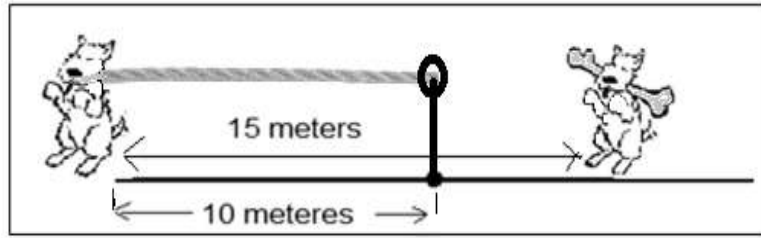


- 3) Call another fire station.
- 4) Fire station is burning but not the fire-engine that holds water.
- 5) The child fell out in the *ground* floor of the twenty-story building.
- 6) There are six sides:
Outside, inside, left-side, right-side, front-side and backside.
Obviously, the hair is outside.
- 7) Left hand (or left finger, left wrist).
- 8) Wait till the bird goes.
- 9) By untying the knot.
- 10) You should not bury living survivors.
- 11) If B is a lady, A is her father-in-law. Otherwise, father.
- 12) When they are quarrelling, their backs facing each other.



- 13) First answer is that the other side of the rope is not tied.

Second best answer is: if the dog is on opposite side of the pillar, then it can go to a distance of 20 meters. See the diagram below.



- 14) Work out backwards. If today were Thursday, tomorrow would be Friday. If Friday was yesterday, today is Saturday. The answer is: THURSDAY.
- 15) The beggar is a lady. Or he may be a politician begging for votes.
- 16) There are more Indians than Japanese.
- 17) Incorrectly.
- 18) The letter W.
- 19)



- 20) I am the only male going to the market. They are coming in the opposite direction.
- 21) With 49 he makes 7 and again with 7, he can make one more. Total 8 cigarettes. You have already solved these type of puzzles.
- 22) The pot is kept upside down.



- 23) She has married twice, both husbands' names being the same.
- 24) A towel.

BOAT-DROPPING PROBLEMS

- 1) A producer has to cross a river with huge cash to go the other side for shooting. Along with him are hero and heroine. He can take only one with him at a time. The hero cannot be left with heroine as there is a danger of shooting being cancelled when he (producer) returns. The heroine cannot be left with cash. Suggest the producer how can he take the three other side.
- 2) Dacoits were looting a village. Three soldiers who can rescue the village, are on the other side of a river. There is a boat and two children who can row it are willing to take the soldiers to the other side. But the problem is that the boat can bear the weight of either two children or one soldier. The boat cannot bear the weight of a soldier and a child also. One of the soldiers is intelligent and with his idea, all the three went to the other side, fought the dacoits and safely handed over the boat to the children. What is the idea?



- 3) You are a small fancy boat owner that can ferry only one along with you. On a dark stormy night, you noticed 3 people shivering underneath a tree, on your side of the river.

One is a doctor, who took you to the hospital in his vehicle when you were a kid, gave his blood and saved you.

The other is a 90-year-old lady suffering from asthma requiring *immediate* hospitalisation.

The third is your dream girl/boy to spend some time with whom, you would bargain anything. This is the best opportunity to fulfil your dream..

You can take only one of them, as you have diesel in your boat for only *one* trip. What do you do/ Whom do you prefer to spend with?

-o0o-

ANSWERS

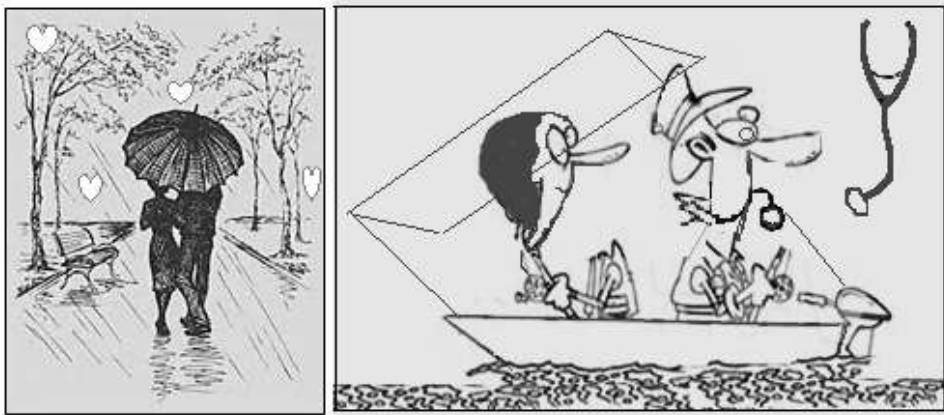
- 1) The producer should take the heroine across the river leaving the hero and cash. After dropping the heroine, he can come take the hero other side. He can have the privilege of taking the heroine again for a boat ride back. Now he can take the cash back, keep it in the custody of the hero, come back for a third ride with the heroine.
- 2) Two children go to the other side, one returns, one of the soldiers goes and the second child from the other side comes back; both children again go to the other side.... and now you know the complete answer.
- 3) Around 87% choose to take the old lady They are called Humanists. Approximately 12% prefer to give lift to the doctor and are called Realists. Remaining 1% are opportunists. They prefer to go with their dream boy/girl.

What about you? Which category do you belong to?

Shift your paradigm.

How about giving your boat to the doctor whom you know from childhood, and request him to take the old lady to the hospital? Doctor is a better person to take care of her. Isn't it?

Then you can be with your dream girl/boy spending the rainy night at the beautiful riverside...! She/he would also certainly appreciate your lateral thinking.



-o0o-

CRICKET AND OTHER SPORT PUZZLES

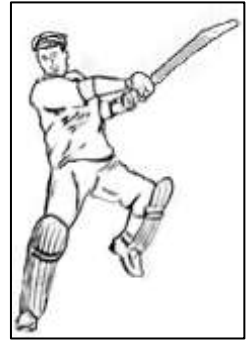
- 1) Don't rush to answer. It is not as simple as it appears to be.

In a fifty over match, 49.4 balls are bowled. India has to score 7 runs to win in last two balls. Last wicket partnership between Virat Kohli and Bhuvaneswar Kumar. Both batsmen are at 94 runs each. India made more than 7 runs in those two balls, and won.

Kumar and Kohli made centuries. How could this be possible?

Don't think of no-balls, wide and free hits because, on no-ball if batsman hits a six he adds 7 runs, to Indian score and the match ends. Then how the runner also gets 100 runs? Mind you, India needs just 7 runs.

This puzzle is more complicated than what you think. Try.



- 2) In an annual state tournament 5 cricket teams participate. The champion team is chosen by the usual elimination scheme. That is, the 5 teams are divided into pairs, and the two teams of each pair play against each other. The loser of each pair is eliminated, and the remaining teams are paired up again, etc. How many games must be played to determine a champion?
- 3) If two from 4 chess players of different strengths play, the stronger one always wins. What is the minimum number of games they need to play, so that we can determine the order of their strengths?
- 4) Due to wind force, a paper bag had blown onto the golf ground. A golfer hits the ball into it inadvertently. He has two options: play it with the paper bag till end, or incur one stroke penalty. Can you suggest him any alternative?
- 5) There's one sport in which neither the spectators nor the participants know the score or the leader until the contest ends. What is it?
- 6) At a cricket betting, a fortune-teller at the gate said, "Pay me 10 rupees. I will tell you the scores. You can bet on that. If it goes wrong, I would give you 1000/- as compensation".

Should I take the offer?

- 7) I wanted to gamble in a match between India and England. The odds were 2 for England and 1 for India, i.e. if I bet 100 on India, I get 200 more. If I bet 100 on England I get 100 more.

Suppose I invest RS. 50 each on both the countries. if India wins I gain 100 rupees on India and loose 50 on England. Hence my total profit would be RS. 50/- (+100 - 50).

If England wins, there would be neither profit nor loss (-50+50).
How much I should bet on India and England so that I get maximum profit, *irrespective of which country wins*.

What would be the safest bet?

- 8) You are given two glass-balls, and access to a 100-storey building. Both balls are identical and would break into pieces from the same height. You are asked to find out the (maximum) highest floor from which an glass-ball will not break when dropped out.

The rule is that, if a glass-ball breaks from floor n , then it would also have broken from any floor above that. If an glass-ball survives a fall, then it will survive any fall shorter than that. If a ball is dropped and does not break, it is undamaged and can be dropped again from a higher floor. However, once a ball is broken, that's it for that ball.

The question is: What strategy should you adopt to *minimize* the number 'drops' to find the solution? (Whilst it's not strictly part of the puzzle, let's first imagine what we'd do if we had only one ball. Once this glass-ball is broken, that's it, no more ball. So, we really have no other choice but to start at floor 1. If it survives, great, we go up to floor 2 and try again, then floor 3 ... all the way up the building; one floor at a time. Eventually the glass-ball will break and we'll have a solution. For example, if it breaks on floor 57, we know that the highest floor that an glass-ball can withstand a drop from is floor number 56. There's no other one glass-ball solution. Sure, if we'd been feeling lucky we could have gone up the floors in two's but imagine if the glass-ball broke on floor 16; we have no way of knowing if it would have also broken on floor 15. Now work out the solution). There are no tricky rules. Don't rat-hole with issues related to terminal velocity, potential energy or wind resistance. This is a plain and simple math puzzle.

-o0o-

ANSWERS

- 1) If you think of 'sixes' and 'No balls' you will never be able to solve this problem.. Here are four correct answers:
 - a) Kohli hit for three runs, but runs one short (When a batsman does not keep his bat properly in the crease while running, it is called a short run. In short run, one run is less counted, but the batsmen won't change their positions.). Meanwhile there was an overthrow for a four, and total six were credited to the batsman., Kohli was on the other side now. The team is one run short of victory. Next batsman hits a six, to reach his century.
 - b) The second answer: Batsman hits for a run. The fielder throws the ball and it hits the wicket keeper's helmet. 5 penalty runs are awarded to the batsman. He is on 100 and on the other side. Next ball the runner hits a six.
 - c) The opposition fielder enters the ground from the rest room, without the permission of the empire. He stops the ball going for a four. India is awarded five penalty runs. Meanwhile Kohli takes a run and he is on 100 now. (మార్పు చూడండి)
 - d) The last answer is that Bhuvaneshwar Kumar is different from Praveen Kumar. Praveen made the century earlier. Bhubaneswar ended on 94 only. Read the question for clarification.
- 2) Four games. Suppose Group 1 consists of : A. B, and Group 2 comprises of C.D.

Match 1 between A and B.

Match 2 between C and D.

Match 3 between winner of match 1 and 2.

Match 4 between winner of match 3 and E (last group).

That's enough. We are not asked to determine the other places. Our job is to find out the 'champion' only. It is by 'elimination' according to the question. Also see the sentence '*the stronger always wins*'. Hence we need not work on 'fortunes' and 'permutations'.
- 3) A plays with B, C, and D till a result is achieved (because this is a chess game, where there are many chances of a draw). B plays with C and D, and in the same way C plays D. Total 6 games.

If two people get the same points, they again play for their positions.

- 4) He can burn the paper and continue to play. That is allowed as per the rules.
- 5) Boxing.
- 6) Don't take the offer. He simply tells you the present score 0 : 0 as the match is yet to start.
- 7) Bet 60/- on England and 40/- on India. You will get a profit of 20/- whichever country wins or loses.
- 8) Let us understand the question first. You have two glass-balls. If you throw the ball from 'n-th or above floor, it breaks. You are supposed to find out what is 'n' with minimum number of throws.

You can reuse the unbroken ball any number of times.

Here is the example. Let us not go for a taller building, but a less 10 floor-building. You cannot go-on trying from each floor. you have to minimize the throws. you throw the ball from the fourth floor and if it breaks, you throw the second ball from first, second and third floors (Total 4 times). If the ball does not break from the fourth floor, you throw it from the 7th floor taking it as a second chance; and again from the 9th and 10th floors. Total 4 times. Hence the answer is 'if it is a 10 storied building, you can find from with minimum 4 throws'.

Now you are supposed to ~~find out if we have to~~ test in a 100 storied building. You need to derive a formula $\frac{n(n+1)}{2} \geq 100$ in such a way that the sum of the number of trials consumed by first glass-ball and that of the second glass-ball (if the first breaks) remains the minimum.


14 is the answer.

You throw the first glass-ball from 14, 27, 39, 50, 60, 69, 77, 84, 90, 95, 99 floors. From 14th floor if the first glass-ball breaks, you'll require a maximum of another 13 drops. If the first glass-ball doesn't break then select the next floor not exceeding 27, because you tried once already.

Too complicated. Cracking this puzzle through algebraic equations is more complicated. Hence I am not giving it here.

-o0o-

SCIENCE AND PSYCHOLOGY

- 1) King Heiro ordered for a 3 kilo crown with 2 kilos of gold and 1 kilo silver. On its delivery, the crown weight 3 kilos (as ordered), but the king was suspicious about its quality. He asked his friend and philosopher Archimedes to determine whether any cheating took place. Archimedes knows that elements lose weight in water in different proportions,. Suppose gold loses $\frac{1}{20}^{\text{th}}$ of its weight and silver $\frac{1}{10}^{\text{th}}$, and the new crown weighed 2.75 kilos in water, determine how much gold was siphoned off.
 
- 2) Are you adventure oriented? In a time machine you can go to future or past and return to exactly the same spot in space, after one hour. Would you try if it comes free of cost?
- 3) At the same thickness, which is more strong? Bunch of hair or a iron wire?
- 4) How many times can you fold a paper?
- 5) Here is an interesting question based on maths and physics.
The TV news says that the present day's temperature in Kashmir is 0 degrees Celsius and it would be *twice colder* the next day.
What would be the temperature the next day?
- 6) B.P. is measured by: 1. Sphygmomanometer 2. Barometer 3. Hydrometer 4. Manometer.
- 7) Who blinks more? Men or women?
- 8) There is one planet that is not named after God. What is it?
- 9) Which animal's eye is bigger than its brain?
- 10) How a giraffe does clean its ears? Tree branches / tongue / feet/ never cleans.
- 11) Which fish does not have 'brain' at all?

- 12) A black mailer sent a ransom note by post. The prosecution could prove and get the black mailer convicted using the stamp on postal cover as perfect *undisputed* evidence. How?
- 13) What is the speed of darkness?
- 14) Rohit, a 5-year old boy is presented with two situations:
 - A. In the first incident a little boy breaks a cup while secretly climbing over the refrigerator to steal a cake placed above it.
 - B. In the second incident, a little girl breaks six cups by accident while helping her mother in the kitchen.

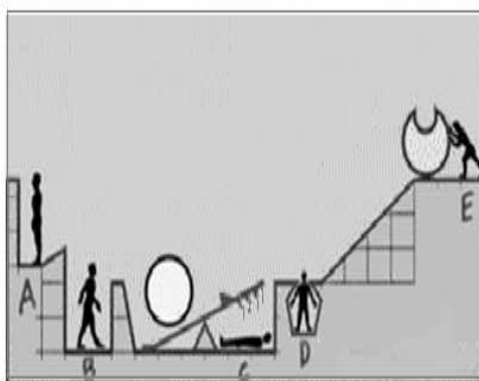
Giving him these 2 situations, Rohit was asked: Who should receive more punishment? The little boy or the girl?

According to you, which answer Rohit would be choosing among these four?

 - a) The little boy should be punished, because he broke the cup while *stealing the cake*.
 - b) The girl should be punished 6 times more than the boy, because she did more damage.
 - c) The boy and girl equally, as breaking valuable pieces is wrong.
 - d) Both of them have not broken the cups intentionally and hence nobody should be punished.
- 15) You are on a boat in a small pond. You have a stone and a log in your boat. You throw the stone into the water. Does the water level in the pond rise, fall or remain the same?
- 16) In above query, what happens if you throw the log out from the boat?
- 17) You pour hot water into a thick drinking glass and into a thin wine glass. The probability of breaking / cracking is more For which glass?
- 18) The speed of sound in air is about 740 miles per hour.
Suppose that a police car is sounding its siren and is driving towards you at 60 miles per hour. At what speed is the sound of the siren approaching you? 740 or 800?
- 19) An ice cube floating in a glass of water melts. Does the level of water Rise? Go down? Stay at same level?
- 20) You want to have a cup of tea on a chilly midnight. You have some burning char-coal. Which is better?

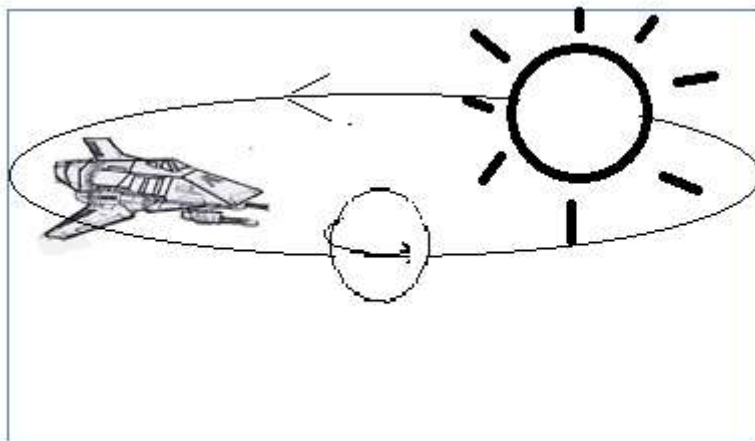
Placing the kettle on the coal or keep the coal on the kettle?

- 21) You want to cool a water bottle in a summer afternoon. You have an ice block. Which is better? Placing the bottle on the ice block or underneath it?
- 22) What is greatness of Pigs in love making?
- 23) What is interesting in Lions love making?
- 24) How much time do you think a cockroach can live with its head cut? One minute / one day / one week / one month.
- 25) You know that we feel heat and warmth in a woollen coat. If you keep one ice cube in a woollen coat and another one outside, which one does melt more quickly? Or does it not make any difference?
- 26) How much distance a flea can jump without wings?
- 27) Drop an Iron ball and a tennis ball from the same height. Which falls first on to the ground?
- 28) Why and how polished boots shine brighter than unpolished ones?
- 29) which heats up fast ? glass, water, iron or wood.
- 30) Which of the following is electro-negative?
A. Sodium. B. Oxygen. C. Magnesium D. Calcium.
- 31) Which weighs more... one kilo of iron or one kilo of Cotton? Or let me question you in a different way. You take a kilo of iron and cotton bag from your town to Antarctica. Which weighs more there? Cotton / iron / both equal / can't say.
- 32) Why trains initially move backwards before commencing its journey?
- 33) As you can see the picture, all you have to do is analyze it and tell who all from the pictured people will die if the person at E pushes the round object to the slide on the slope. Keep in mind all the physics and the terrain while you analyze the things.



ANSWERS

- 1) Gold and Silver lose $1/20$ and $1/10^{\text{th}}$ weight respectively. 20 grams of gold weighs 19 grams in water. 20 grams of silver weighs 18 grams. It means, for every 1 gram of weight-loss, 20 grams of gold is siphoned off ($1/10 - 1/20$). If the crown is made of 2000 grams gold and 1000 grams silver, it should weigh 2800 grams in water. The crown weighed 2750 only. 50 grams less means.... 1000 grams of gold is syphoned off and is substituted by silver.
- 2) No. I don't accept the offer. If the pilot is going to leave me "exactly at the same space" from where he has taken me, I would be thousands of kilometres away from the earth.



- 3) Obviously the hair.
- 4) A paper can be folded into half ... again half.... In such a way, not more than 7 times. Try if you can fold more..
- 5) It is difficult to answer this question technically, but can be solved logically. Convert the Celsius into Fahrenheit. 0 degrees Celsius = 32° F. 'Double chill' = half of it $\therefore 16^{\circ}$ F. Convert back to Celsius. $16 \times 5/9$ which works out to -8.80° C. Funny?
Yes. But it does not stand good on technical grounds.
- 6) Sphygmomanometer.
- 7) Women blink their eyes approximately 1.5 times more than men.
- 8) Earth.
- 9) Ostrich.
- 10) Tongue. It is more than 20" long.

- 11) Starfish.
- 12) He used his tongue and saliva to paste the postal stamp that fixed the culprit through DNA test.
- 13) The speed of darkness may be 186,200 miles per second. If light travels at this speed, it must also dissipate at the same speed. This may not be scientifically correct but there is no more rational answer.
- 14) Views and perceptions change by your age.

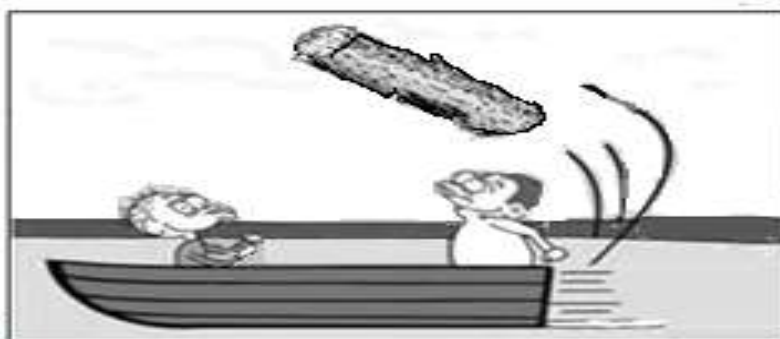
Rohit is a 5 years old kid. To answer a question of this sort at that age, kids take into consideration the loss to the property only. He says that the girl should be punished six times *more* than the boy.

But as the children grow, they take into account the intent of the doer and the situational circumstances. Then they say that the Boy should be punished and not the girl because the boy's intention of stealing is bad.

At the teen age, they surprisingly argue that neither the boy nor the girl should be punished as the breaking the cups is unintentional.

This is called Piaget and Kohlberg theory.

- 15) When the boat carries the stone, more water is displaced by the boat due to its 'weight'. When the stone is thrown into the water, it sinks and displaces less water. So the water level falls.
- 16) The log continues to displace the same amount of water whether it is in the boat or out of the boat as per Archimedes principle. So the water level stays the same.



- 17) When hot water is poured, the glass expands. Chances are more for the thick glass to break as it cannot *sustain* the expansion.
- 18) Speed the sound is same whether coming from a still object or moving car.

- 19) It stays at same level. Here is the explanation. In the first state, we have an ice cube of mass M floating in the water. If it is floating (in equilibrium), it will have to displace enough water to support its weight. How much It is-Volume = M / d , where M is the mass of the ice cube, and d is the density of water.



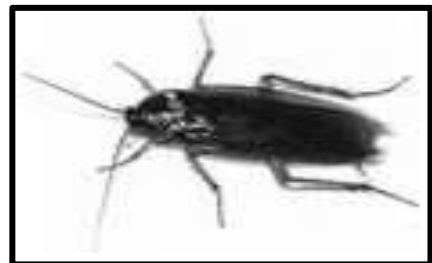
In the second state, where the ice has melted, it turns into water. The volume is again M/d . hence the level does not change.

Confused ?

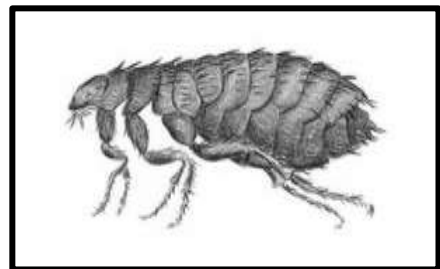
- 20) You have to keep kettle above the char-coal as the heat goes 'up'. Same way, hot water (tea) goes up.
- 21) Do you remember how fish survive in frozen waters? Layer of frozen water keeps the lower-end water warm. Same principle applies here. If you keep the ice below the bottle, the cool water at the bottom (of the bottle) obstructs the surface water from cooling. You have to keep the ice block 'above' the bottle.



- 22) Pig's orgasm lasts for more than 30 minutes on average.
- 23) Some lions mate over 10 times a day.
- 24) A cockroach can live without its head for approximately more than one hour.



- 25) Temperature in a thermo-meter does not rise in a woollen-coat. Woollen does not *generate heat* but just keeps the warmth of body from exposure. The same principle applies when an ice cube is kept in it. It maintains the coolness inside. Hence the cube inside the coat does not melt quickly, compared to the cube outside.



- 26) A flier jumps 350 times its body length. It's like a human jumping the length of a football field.

- 27) Earth gravity acts with same force on all objects. When thrown from an aeroplane, whether it is a feather or a iron ball, both should fall with the same of speed. They must hit the ground exactly at the same time.



But the reason why that does not happen is....the wind resistance. Winds slow down the feather from coming down fast.

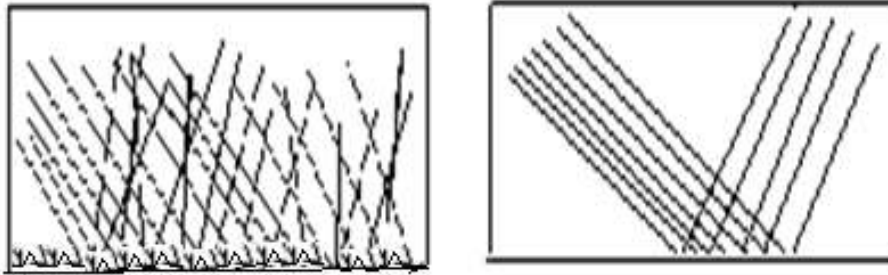
On the moon, they fall down at the same speed as there is no air. Our scientists actually did this experiment and it worked.

- 28) Light rays shatter on uneven surfaces. They reflect back evenly on smooth tops.

But again the word 'smooth' is relative. If you observe an edge of a razor-blade under a microscope, you find its surface uneven with many ups and downs.

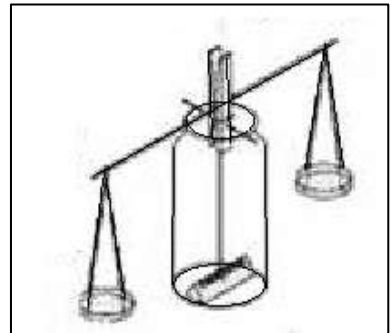
'Polish' itself does not shine but makes the surface even. Light rays falling on it reflect back uniformly, making things brighter, and that is called 'shining'.

See the diagram below. బొమ్మ చూర్చాను



- 29) Iron
30) Oxygen.
31) A hyperactive student may rush to say 'iron' that is obviously not the correct answer.

"Both weigh equally" appears to be apt.



But Lateral-thinking suggests, 'think in a different way'.

'Both may weigh equally at your place, but due to air humidity, cotton may weigh more on a hill top. Magnet force at south and north poles also has an effect on iron weight.'

- 32) When a train stops, compartments move forward towards the engine before coming to a stand-still position. With this effect, when the train re-starts, the engine has to pull the *entire train* 'at one stretch' which is very much 'demanding'.

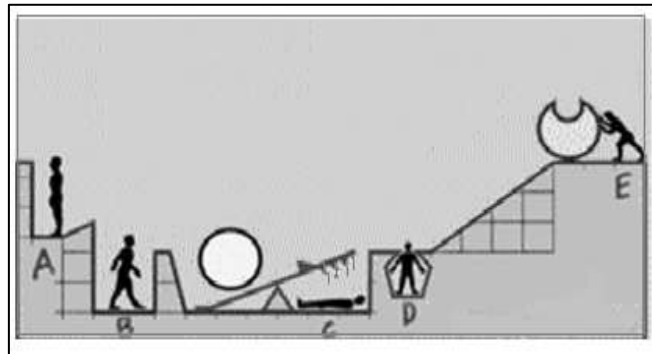
To scale down the strain on the engine, the driver moves the train slightly backwards, that loosens the chains between the compartments.

With this effect, when the train starts moving forward, it pulls the compartments '*one by one*'.

The same example stands good for bullock carts also.

The carter walks along with the cart for sometime and then jumps on to it, to lessen the burden on the bulls.

- 33) If you notice the gif, you know that D, C and B are going to die. D dies directly after coming in contact with the object, C dies after being thrust by the spikes of the see-saw and B dies with the second ball.



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THE CHICKEN AND EGG PROBLEMS

- 1) A chicken farmer has figured out that $1\frac{1}{2}$ hens can lay $1\frac{1}{2}$ eggs in $1\frac{1}{2}$ days. How many hens does he need to produce 12 eggs in 6 days?

- 2) A young boy requests a king to permit him to marry his daughter. The reluctant king makes a deal with him. He asks his people to bring one hen and a cock and will keep them in two separate rooms.

This is being done in the presence of his country men.

The boy shall have to write on a paper 'The hen is in this room' and paste it on to the door. Then the girl enters into the court yard. If she has faith in her lover, she opens the door on which he pasted the paper. If the hen comes out of the room he would get the girl.

If it is a cock, he will be hanged.

Everything appears to be fair, as this is being done in the presence of entire people. But the girl tells the boy that her intelligent father is very much reluctant to the proposal and going to keep his henchmen behind the two rooms, which have back doors.

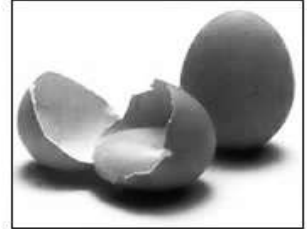
If the boy goes towards hen's room, the assistant will interchange the birds before the entry of the girl. Thus the boy is going to be surely hanged.

The boy is shocked to know this, but is more intelligent than the king. Next day, he wins the bet and gets the girl. How?

- 3) 1 hen lays 1 egg in 1 day. How many eggs do 2 hens lay in 2 days?
- 4) Give an arithmetic answer. If 4 hens lay 4 eggs in 4 days, how many eggs 2 hens lay in 2 days?
- 5) How many grains can a thirty-days-old chicken eat with empty stomach?
- 6) There are some eggs in each bucket, named A, B, C, D, E. If $A = 5$; $B+A = 6$; $E+B = C$; $E+C+B = 8$, choose the values of A, B, C, D, E from 1, 2, 3, 4, 5.
- 7) As in the same question above, find out the values of A, B, C, D,

E from 1, 2,3,4,5 if $D+B = A+C$; $2E = C+5$; $D+C = A$. This is a more complicated question.

- 8) Three friends divide some eggs equally. After each of them eat 4 eggs, the total number of eggs remaining with them, is equal to $\frac{1}{3}$ of total eggs. Find the original number of total eggs.
- 9) There are six eggs in the basket. Six people take each one of the eggs. One egg is left in the basket. How could this be possible?
- 10) If 2 hens lay 2 eggs in 2 days, how many eggs does one hen lay in 1 day? Arithmetically the answer would be "half-egg" which is beyond common sense. Think of various alternatives and give at least 3 *logical / probable answers* for '1 egg'.
- 11) The interviewer offered me two options, "Shall I pose one difficult question or three simple questions?" I chose the difficult one and he asked: "*Which is earlier, is it the hen or the egg?*" I replied that it was the hen. He said egg. I countered him with my argument and got the job. How?
- 12) Which comes first, chicken or egg?
- 13) If 2 peacocks lay 2 eggs in 2 days, how many peacocks lay 4 eggs in 4 days?
- 14) This question was asked in an interview for Chartered Accountants.



I purchased a chicken from a store and gave him a thousand rupee note. The chicken costs Rs.300. Shop keeper's profit is 50% on the cost price. If my 1000 note is fake, what is the total loss to the shop keeper?

- 15) A lady purchased 200 worth goods, gave a thousand rupee note. The shop keeper did not have change and took it from neighboring shop. After one hour the lady returned the goods and took her money. In the evening the neighbor returned the note claiming that it was a fake. What is shop-keeper's loss? 1000 / 1200/ 2000 / 800.

ANSWERS

- 1) This is a classic problem that many people get wrong because they reason out that neither 'half-of-a-hen' can lay an egg, nor a hen can lay 'half-an-egg'. However, we can get a reasonable solution by treating this as a purely mathematical problem where the numbers represent averages. To solve the problem, we first need to find the rate at which the hens lay eggs.

The problem can be represented by the following equation, where RATE is the number of eggs produced per hen / day:

$$1\frac{1}{2} \text{ hens} \times 1\frac{1}{2} \text{ days} \times \text{RATE} = 1\frac{1}{2} \text{ eggs}$$

Multiply both sides of the equation by $\frac{2}{3}$,

$$1 \text{ hen} \times 1\frac{1}{2} \text{ days} \times \text{RATE} = 1 \text{ egg.}$$

Multiplying both sides of the equation again by $\frac{2}{3}$ and solving for RATE (R), we get: $R = \frac{2}{3}$ eggs per hen/ day.

Now that we know the rate at which hens lay eggs, we can calculate how many hens (H) can produce 12 eggs in six days using the following equation:

$$H \text{ hens} \times 6 \text{ days} \times \frac{2}{3} \text{ eggs per hen/day} = 12 \text{ eggs.}$$

Solving H, we get: $H = 12 \text{ eggs} / (6 \text{ days} \times \frac{2}{3} \text{ eggs per hen/day}) = 12/4 = 3 \text{ hens.}$

Therefore, the farmer needs 3 hens to produce 12 eggs in 6 days. To make it simple, see the table below.

Too complicated, but that is the way the question is asked.

Notes	hens	eggs	days
1.5 eggs/1.5 hens/1.5 days	1.5	1.5	1.5
Doubling the hens will double the eggs, but not the days.	3	3	1.5
Then doubling the days will double the eggs, but not the hens.	3	6	3
Double the days again (to reach 6 days) will double the eggs again, but not the hens.	3	12	6

- 2) The boy knows that the intention of the king is to hang him.

If he is going towards the cock's room, the henchmen behind the room will be just onlookers, to hang him later.

If he is going towards hen's room, they rush to change the birds from behind.

Hence he has an idea.

He writes 'The hen is NOT in this room'.

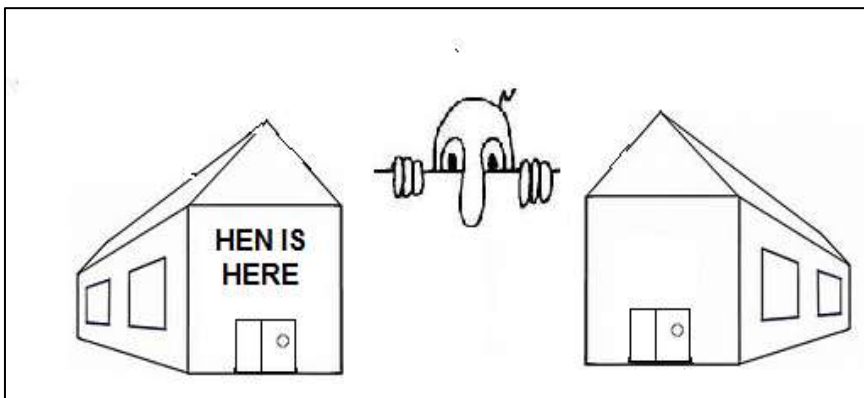
Now there are two probabilities. Going towards cock's room, or hen's room....!

King's hunch men who are waiting behind the room do not know that he is going to write in the negative. If he is walking towards cocks room, they are happy that he is going to do the mistake.

The boy also knows that If he is going towards hen's room, the assistants from behind, rush to change the bird following the instructions of the king.

Hence he wrote, 'The hen is NOT in this room'.

The girl comes, and opens the other room and the hen came out amongst the claps from the people in the court yard. The king has no option. But he is also convinced by the intelligence of the boy and accepts their marriage.



- 3) Four
- 4) If 4 hens lay 4 eggs in 4 days, 4 hens lay 2 in 2 days. 2 hens lay "one" egg. This is the arithmetic answer.
- 5) Just one, after which, it is not an empty stomach.
- 6) A=5, B=1, C=4, D=2, E=3.
- 7) A=5, B=2, C=1, D=4, E=3.

- 8) Suppose the total eggs are X . They ate 12 eggs. Remaining eggs are $X-12$, which is equal to $\frac{1}{3}$ rd of the total eggs.

$$\frac{1}{3} X = X - 12.$$

$$X = 3(X-12). \text{ Simplify it. } X = 3X - 36.$$

Total eggs are 18. After eating 12, the remaining are 6, which is $\frac{1}{3}$ of the total.

- 9) The last person took the egg along with the bucket.
- 10) The answers vary. Let us assume that there are two hens, A and B. That gives us 4 alternative probabilities.
- If both A and B lay eggs once in 3 days, and if it is not their egg laying day, zero eggs..
 - If A lays one egg every day and B not yielding any egg, the answer is one egg.
 - If A lays two egg once in two days, and B lays one in three days, then it would be three eggs
 - If A and B lay 2 eggs each once in three days, and if it happens to be their egg-laying day, the answer would be 'four'. There is one more answer. Think.
- 11) He is supposed to ask me only one question.
- 12) In the dictionary 'c' comes first.
- 13) Peacocks don't lay eggs. Peahens lay.
- 14) The price of the chicken is 300. Cost price is 200 + profit 100 (50% on cost price). The shop keeper given me 700 and 200 rupees worth chicken. Hence his total loss is 900.
- 15) (Suppose) Cash when shop opened in the morning: 1000
 When the girl gave the note: Fake note + 1000
 As the girl departed after purchase: 1200
 When she returns the goods, takes her money back: 1000
 When the neighbor returns fake note and takes back his cash:
 One thousand rupees fake note which is worthless..
~~It is worthless.~~ Hence the loss to the shop keeper is 1,000.

WEIGHT AND LIQUID PROBLEMS

- 1) How much more available capacity is there in: 20 four- gallon cans that are half full, than in 24 gallon cans that are half empty?
- 2) A full bottle of honey weighs 1 kilogram and with half the honey 600 grams. What is the weight of the bottle?
- 3) A honey bottle weighs 500 grams. If it is replaced by oil, it weighs 350 grams. The weight of honey is double than the oil. What is the weight of the empty bottle?
- 4) A fish weighs 2 kilos plus half of its weight. What is its weight?
- 5) The weight of a whole brick is 2 kg plus the weight of $\frac{1}{3}$ of the whole brick. What is the weight of the brick?
- 6) A milkmaid adds 4 litres of water to 2 litres of milk before distribution. By mistake she added 2 litres water to 4 litres of milk. How much more water has she to add to rectify her mistake?
- 7) A painter should mix 6 litres of paint, consisting of 4 litres of white and 2 litres of black.

But by mistake he mixed 2 litres of white and 4 litres of black.

How much minimum did he have to *pour out* to correct his mistake before adding the extra white paint?

- 8) This is a simple question. You have 12 gold coins of same weight except one, which weighs less than others.

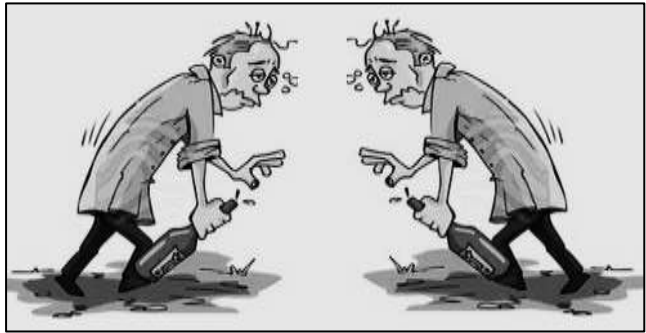
You are given only a balance machine with no weighing measures, that just tells you which side weighs more, but. By using the balance machine only 3 times, can you find the odd coin?

- 9) As in the previous question if one coin is of less weight, you might have solved it easily. But if it is of *different weight* (you don't know whether it is heavier or lighter) then the question becomes complicated.

If you can not solve it, see the answer.

If you are confused even with the answer, go to the next question and try to understand both questions and the answers. Don't leave it frustrated.

- 10) A king wanted to present every child in his kingdom one tiny gold toy of 10 grams. He employed 100 artisans. Per day each artisan produced 100 toys and handed them to the treasurer. After a month, the king knew that one of the artisans is swindling 1 gram of gold per each toy. Next day he went to the treasury when the artisans brought their manufactured toys. The king had a weighing machine and measuring stones. Using the machine *only once*, he was able to find the culprit. How?
- 11) Which weighs less in water – one kilo iron or one kilo stone?
- 12) You have one 5 gallon jug and a 3 gallon jug. You have no other container, and you need to obtain exactly 7gallons of water from a well. How can you do it?
- 13) In the above question if you need to obtain four gallons how do you do it?
- 14) Taagubotu Ramesh and Venu Madhav sit to drink. They have three bottles with them. 12 peg, 8 peg and 5 peg. The last two bottles are empty. 12 peg bottle is full.



- They want to drink equally, both six pegs, not a drop more nor a drop less. The bottles have no markings on them. Can you help them how to share equally? Please do it. Fill the first two bottles exactly 6 litres of whisky with the help of third bottle, of course with minimum attempts. How do you do it?
- 15) You have equal amount of Grape juice and lemonade in two glasses. One teaspoon of the grape juice is taken from the first glass and mixed with the lemonade. Then a teaspoon of this mixture is mixed back into the orange juice. Is there more lemonade in the grape juice (in first glass) or more grape in the lemonade glass?

ANSWERS

- 1) Half of the 24 gallon vessel is empty means the vacant space is 12 gallons. 20 Four- gallon vessels are half-empty means the vacant space is 40 gallons. Hence the difference is 28 gallons.
- 2) If x is the weight of the bottle and y is that of honey, then:
 $x + y = 1000$ grams.....(a)
 $x + \frac{1}{2} y = 600$ grams.....(b)
 $a - b$ that gives: $\frac{1}{2} y = 400$. \therefore $Y = 800$. Bottle Weight is 200 g.
- 3) Weight of the empty bottle is constant. Weight difference with honey and oil is 150 grams. Honey weighs double the oil. Hence it should be 300 grams. Hence the weight of the empty bottle is 200 grams, honey 300 and oil 150 (half of honey's weight). You may work out this problem algebraically also.
 Assume bottle weight is X , oil weight y . Honey weight would be $2Y$.
 $X + Y = 350$.
 $X + 2Y = 500$
 $Y = 150$.
 $X = 200$.
- 4) Suppose fish weight is x . $x = 2$ kilos + $\frac{1}{2} x$. \therefore 4 kilos.
- 5) Three kilos.
 $x = (2 + \frac{1}{3} x)$.
 $3x = 6 + x$.
 $2x = 6$. \therefore $x = 3$.
- 6) Water should be double than the milk. In 4 litres of milk, the water content should be 8 litres. 2 litres already exist. Hence she should add 6 litres of water.
- 7) He should have 6 litres of total paint, of which the ratio should be $4w + 2b$. But at present he has $4b+2w$. To make it $2b$, he should pour out half of the mixture. It would be $2b+1w$. Then he should add 3 litres of fresh white paint to make it $2b+4w$.
- 8) Weigh 6 coins each in two batches. From the batch that weighs less, weigh 3 and 3 again. From the batch that again weigh less, take two coins and weigh them. If both are equal, the third coin is the odd one.

- 9) If you take 6 and 6 as in the previous question, you can not derive the answer, because you don't know whether the odd coin is heavier or lighter compared to others.

Divide coins into three groups, 1,2,3,4 as first 5,6,7,8 as second and remaining as third. Compare first and second. if both are equal, the odd one is in the third group. Your job becomes easier.

If they are unequal, you know that the third group are genuine. Now keep 1,2,3 and 12 aside. Compare 4,5,6,7 and 8,9,10,11 where 9, 10 and 11 are standard (not defective). Here, if these two groups are equal, the odd one is among 1,2,3 making our trails simpler.

If 1,2,3 are not defective, the odd one is among 4, 5, 6, 7, 8. Other possibility is... group of 4,5,6,7 can be heavier or lighter. If 4, 5, 6, 7 group is heavier, infer that the odd one is heavier among 5,6,7 but not 4 or 8, because in the earlier comparison 4 being in lighter group, it can't be heavier. Sorry. Too complicated.

- 10) The stumbling block is the number of artisans. One hundred is just too many to handle. But it can be done. Take 1 toy from A, 2 from B... hundred from the last artisan. The total weight should be $(1 + 2 + 3 \dots 100) \times 10$ grams. If one gram is short, the first artisan is culprit. If fifty grams are short, the fiftieth artisan is the swindler.

- 11) Remember Archimedes principle? The loss of weight of any body in a liquid, is equal to the weight of the liquid displaced.

Weight being same, volume of stone is more than the iron. Hence it displaces more water. So the stone loses more weight in water.

- 12) Fill the 5 gallon jug with water and pour into the 3 gallon jug.

There would be 2 gallons remaining. Throw away water from the small jug. Pour those 2 gallons into it. Then fill the 5 gallon jug.

Total is 7 gallons.

- 13) Take 5 gallons and pour into small jug. You are left with 2 gallons. Empty the small one. Take another 5 litres and top up the small one with one gallon. You are left with 4 litres in the big jug.

There is an alternative method.

Take water in the smaller jug, pour into the bigger one, and again repeat the same thing. You are left with one litre in the small jug.

Empty the big jug, and fill it with one litre, and again with 3 litres.
Total 4 litres

- 14) Unlike the above, let us work out in a different way.

Here are eight steps to derive the result from Jugs with 12-8-5 capacity. First jug is full of water.

Step one:	12	0	0	Step two:	4	8	0
Step three:	4	3	5	Step four:	9	3	0
Step four:	9	0	3	Step five:	1	8	3
Step five:	1	6	5	Step six:	6	6	0

- 15) This appears to be a mind-blowing puzzle but the answer is simple. *The ratio would be the same.* In first cup there's same amount of lemonade in the grape juice, as well as in the second cup there's same amount of grape juice in the lemonade.

you can make a complicated mathematical equation. **L** being the lemonade, **G** being grape, assuming that the cup contains 10 grams of liquid, of which one gram is taken out from the first glass, mixed with the second one, and then the vice versa, the equation would be:

Initial:

Glass 1: 10 L.

Glass 2: 10 G

After mixing one gram from Glass 1 to 2:

Glass 1: 9 L

Glass 2: 10 G + 1 L

After re-mixing from second glass to first glass:

Glass 1: $9L + \frac{1}{11}(10G + 1L)$. Glass 2: $10G + 1L - \frac{1}{11}(10G + 1L)$
Simplify the equations.

Glass 1: $9L + \frac{10}{11}G + \frac{1}{11}L = 100L/11L + 10/11G.$

Glass 2: $10G + 1L - (10/11G + 1/11L) = 100/11G + 10/11L.$

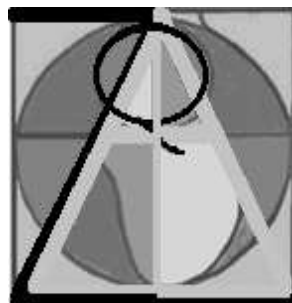
Both ratios are same.

There is another simple way. Take some quantity of the lemon juice and mix it with orange and vice versa. Whatever may the ratio in the first cup, the reverse would be in the second cup. *Ratio is the same..!* Don't you agree?

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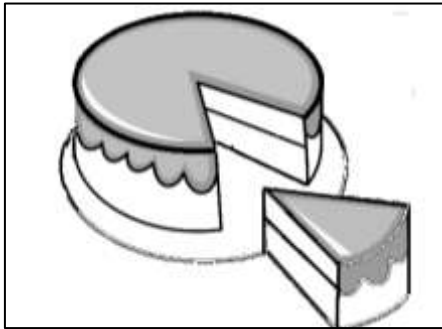
LANGUAGE AND COMMUNICATION SKILLS

- 1) I am very week (or is it weak?) in English and my sight is also feeble as well. I find four alphabets A, C, P and Q in the diagram below. Can you find few more?
- 2) A certain five letter word becomes shorter when you add two letters to it. What is it?
- 3) Punctuate the following sentence to make sense: "That that is is that that is not is not is not that it is is."
- 4) Swlnfr. What is this word? Three vowels are taken away from ~~that word~~ and letters are jumbled. It has no flavour but oil is extracted from it.
- 5) I AM A WEAKISH SPELLER. Rearrange these letters to form the name of a famous play-writer in English based on whose play was made a Hindi film Omkara:
- 6) *Palindromes* are words that spell the same from both sides., DEED, LEVEL, PIP, ROTOR, CIVIC, POP. Try some more, at least two.
- 7) Can you make some group of words that gives the same sounding from both sides? E.g. 'race car, 'bar crab', 'borrow or rob', 'live evil', 'step on no pets',
- 8) The name of one of our Indian language is a palindrome (a word that is spelled the same forward and backwards). What is it?
- 9) Are you a decoding specialist? Try this: You find a note written in code on your classmate's desk. It reads: "Abc'd ebbf ghi ibajckgldmkf". And later, there was a signature. "dbemji". You could decode the first part. It reads: *Let's keep our relationship*. The curiosity is getting to you. Can you figure out the signature in just one minute? Try...quick.
- 10) Name the only English word that ends with the letters ".....mt"?
- 11) Name 3 English words that end in "....dous."
- 12) "NEW NEW DOOR":Re-arrange alphabets to make one new word.



- 13) What is the English word that is pronounced the same way, without its last four alphabets?
- 14) What word in English has more and more definitions?
- 15) What is the longest word in English with all letters in alphabetical order? Here is the tip: The word consists of 6 letters.
- 16) How many different words can you create from the alphabets of the word "STRANGE"? For example: A ... An ... Star... Range etc. Don't repeat same alphabet in one word like Rare, Tree etc.
If you can create about 10 words it's 'good'. More than 25.... Excellent..!!! Try.
- 17) 'GODSBY' is a novel comprising 50,000 words. The amazing fact about this book is, you don't find the alphabet 'E' in the entire book.. let us do an experiment on the same lines.
Write a lengthy sentence with more than 40 words without using alphabets A and E. here is an example. *"Sky is only limit if you try to work with your solid spirits on tough, difficult jobs".*
Your sentence should be meaningful and grammatically correct. Don't repeat any word twice. Try. Difficult, but not impossible.
- 18) This exercise improves your language skills.
Take a single letter and expand it into a word, by adding just one letter to it. For example if you take 'A' you can continue like this: **A... At...ATE**. Now add one more letter to make it a 4 letter word: **TEAM**. Make it 5 letter: **Steam**. 6: **Stream**. 7: **Steamer**. We can do it with the letter 'B': Be, Bet, Beat, Abate etc. Now start with 'E' and create words like Me, Met... try to make at least three more words after 'Met'.
- 19) Prepare thirteen words from the alphabets from the word "THIRTEEN", without repeating alphabet in the same word, and not using brand names like RIN etc. Ex: Her, Teen, Ere.
- 20) The word HEROINE holds few other English words in a row, like He, Her, Hero, In.
Likewise, find out a seven-letter word, which contains nine English words *without any rearrangement*. Here is a tip: the first four letters are: THER (The, He, Her...). Find out the next three letters.
- 21) Find out one English word wherein the alphabet 'u' is followed by another 'u'.

- 22) There are two English words that has all the five vowels, A, E, I, O, U in same alphabetical order. One word is "facetious." Name another one?
- 23) What is the longest English word without a vowel?
- 24) This is to test your communication skills.
One midnight a cat enters your room. You want to know its weight. You have a weighing machine, but as you put the cat on the machine, it jumps away before you look into the meter reading. Tell 5 different methods how you can find out its weight?
- 25) Buffaloes buffalo buffalo buffalo buffalos buffaloes. This is a complete sentence. What is the meaning of it?
- 26) Here is a question testing your verbal I.Q. You are asked to explain how to cut a cake into eight pieces with just three cuts. You know that a 'plus' (+) cut above the cake, followed by a horizontal slice in the middle can make it eight pieces. But you have to explain orally without sign language.



- Thinking 'within-self ' is different from communicating to others. Can you explain a blind man without showing / using your hands? Don't confuse us with words like 'perpendicular... parallel ... axis'. How to cut the cake into 8 pieces with just 3 cuts?
- 27) There are fourteen punctuation marks in English grammar like... Full stop, comma, bracket, dash. Can you name another five?
- 28) If Dasaradha is the father of Rama, who is Ramaa to Dasaradha?

- 29) Missing. What is missing? This is an unusual paragraph. I'm curious how quickly you can find out what is so unusual about it. It looks so plain you would think nothing was wrong with it. In fact, nothing is wrong with it! It is unusual though. Study it, and think about it, but you still may not find anything odd. But if you work at it a bit, you might find out. If cannot, check up with question number 10, so that you may get a hint.

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ANSWERS

- 1) All 26 alphabets. Try. you will be amazed to find the hidden letters.
- 2) Short.
- 3) That that is, is; that that is not, is not....! Is not that it? It is.
- 4) Sunflower. The letters u, o, e are taken out.
- 5) William Shakespeare.
- 6) Madam, eye, nun, radar, toot, kayak, noon, poop, solos, pop, tot, mom, dad.
- 7) Evil olive, These six phrases sound the same from both sides: Straw warts, Pull up if I pull up, Ten animals I slam in a net, Was it a bat I saw? Was it a car or a cat I saw?
- 8) Malayalam.
- 9) Sekhar.
- 10) Dreamt.
- 11) Tremendous, stupendous, and hazardous.
- 12) One new word.
- 13) Queue
- 14) Set.
- 15) A-L-M-O-S-T.
- 16) A, an, ran, anger, range, tear, star, stare, rat, rate, rage, gear, tan, stage, eat, ate, gas, sage, tag, gate, great, grate. You can work out another five to ten words like eager, tea...ant, ants. Try further.
- 17) Here is a 42-wird sentence without A or E. "It is up to you to know how I will kick you out of this city if you don't opt to show your support to my son, who is in politics for which I solicit your outright funding". Try one more sentence.
- 18) Me, Met, Meat, Teams, Stream, Streams. Try words with "A".
- 19) The, Teen, I, He, Her, Thin, Nit, Tin, Three, Tree, Hen, There, Tire.
- 20) THEREIN. This word contains 9 English words: There, the, he, her, here, ere, rein, I, in.
- 21) Vacuum.

- 22) Abstemiously.
- 23) "Rhythm" is the longest English word without a vowel.
- 24) When you are tested for your communication skills in interviews, the answer should be total and complete. Students normally do 4 mistakes: Fumbling of words, Confusion of thoughts, Missing links between words and sentences, and finally Stopping the answer with a comma rather than with a full-stop like "I keep the milk and weigh... I will tie its legs...."etc. Their intention is 'I told half-answer to convince you that I know the subject'. Here the interviewer is asking the question not to know your knowledge, but your communication skills. Here are five comprehensive answers.
- I keep milk in a bowl, and note the weight while the cat drinks it weight of the bowl with milk, and note the total, I, subtract first from the later.
 - I hold the cat and stand on the machine. Total weight minus my weight is the weight of the cat.
 - I weigh the cat tying its legs and subtract the weight of the rope.
 - I keep it in a gunny bag, weigh and then deduct the bag's weight.
 - I Mix sleeping pills to the milk, and weigh it when it sleeps.
- 25) Buffalo is a noun that refers to an animal. However, it is also a verb that means 'to bully'. Buffaloes buffalo buffalo buffalo buffalos buffaloes' means, "buffalo bullied by other animals, in turn, bullies other animals".
- 26) knowledge is different from communicating it. How best may be you are in communicating, don't expect the opposite person of your standard. Don't confuse with words like "horizontal, vertical, parallel and perpendicular". Here is the answer: "Cut the cake into 2 pieces, place them one above the other. Cut them into half to make 4, and the into 8 with the same procedure".
- 27) Full stop (.), comma (,), brackets (()), dash (-), exclamation(!), question mark (?), semicolon (;), column (:), apostrophe ('), ellipses (to show the suspense or unfinished sentence...), hyphen(-), parenthesis (Square bracket used in math), quotation mark ("..."), braces {normally used in music chords, notes etc.}. .
- 28) Don't know. Rama is different from Rama'a'.
- 29) The alphabet 'E' is not used in the entire paragraph

TRUTH HEAD-ACHES

- 1) Superstar says "I am certainly not over 60". Megastar says "I am not 56 and you are not 6 years older to me". If both statements are *false*, how old are they?
- 2) If someone says "I always lie" is he telling the truth? Or lying? Choose your answer from the three. A: He always tells truth. B: He sometimes tells the truth C: He always lies.
- 3) In a bank robbery, A, B and C are suspected robbers. A says B is guilty, B says C is guilty and C says A is guilty. Who is/are the culprit(s) if all are lying?



- 4) In a bank robbery, A, B and C are the suspects. A and B say they are not guilty. C says, "B is guilty". Who is the real culprit, if *only one among them* is telling the truth?
- 5) In a bank robbery, A, B and C are the suspects.
A says B is guilty. B says C is guilty. C says B is guilty.
If two people are telling the truth, who is/are guilty?
- 6) Among A, B and C, one or more is/are sure culprit(s) in a bank robbery,
A says B is guilty. B says A is guilty. C says A is guilty.
If nobody is telling the truth, who is/are guilty?
- 7) Two suspects in a murder case are brought in for questioning. In Narcotic tests, the police can get only one statement from each:
Suspect A: I am innocent.
Suspect B: Only one of us is telling the truth.
who is the murderer?

- 8) There was a burglary in a shop. Three suspects: R, S, and T were caught and questioned.

R said: "S did not steal".

S said: "That is true".

T said: "R is innocent".

Later the police found out that one thief *did* tell the truth, and at least, one of them was *lying*. Who was the thief?

- 9) There is only one correct answer for this question. What is that?

A) Answer A.

B) Answer A or Answer B.

C) Answer B or Answer C.

- 10) There was a horse wandering on a lawn.

A said: "The horse is Brown."

P said: "The horse is not Black". S said: "The horse is either Brown or Grey."

At least one is telling truth and at least one is lying. Can you tell the exact colour of the horse?

- 11) In the pub the girl met a funny guy who said: "If my wife is a truth-teller, then I am a liar." Who is this man... liar or truth-teller?

- 12) 'Who is older?' you asked a boy and a girl. The girl said 'I am older'. The boy said 'I am younger'. At least one of them was lying. Who is older?

- 13) Preeti Jinta says: 'I am the first'.

Karishma Kapoor says: 'I am the last'.

Airswa Rai says: 'I am not the last'.

Priyanka Chopra says: 'I am neither the first nor last'. If only ONE of them has lied, who is really the first?

- 14) Narada lies a lot. He tells the truth on only one day in a week. One day he said: "I lie on Mondays and Tuesdays." Next day he said: "Today is either Sunday, Saturday or Thursday." He said the next day: "I lie on Fridays and Wednesdays." On which day of the week does he tell the truth?



- 15) There are 3 boxes with inscriptions on them.

Golden box: The ring is not in the silver box.

Silver box: The ring is not in this box.

Lead box: The ring is in this box.

At least one inscription is true and at least one is false. In which box lies the ring?

- 16) In a political party, there are 100 leaders. Some of them are honest and some are corrupt. Can you tell me how many are liars and how many are honest from the following information? (1) At least *minimum* one is honest. (2) If you take any two politicians, at least one of them is corrupt.



- 17) While going to Rampur you came across a 'T' junction, fallen on the ground due to recent cyclone. There were two ways, one leading to Rampur and the other to Ravanpur. You didn't know whether to turn left or right.

A person came from behind. You asked him from where he was coming.

"Rampur" he said.

"Is this the way to your village?" you enquired.

He said "Yes".

As you were to proceed that way, he stopped and said, "People from Rampur always tell the truth and Ravanpur people always lie".

You said 'Thank you' and proceeded the way he showed, without enquiring whether he is a truth-teller from Rampur or liar.. How could you do it without further questioning?

- 18) You are a stranger to Rampur. While going to that village on some work, you came across a 'T' junction. There were two paths, one to Rampur and the other to Ravanpur. You didn't know whether to turn left or right. There was a board.



Two men were standing there, realised you to be stranger and smiled.

The young man said "We know that you are going to ask us the way to the village you intend to go. One among us is always truth speaking, and other is a liar all the time. Ask any one of us only one question to know the way. We will answer your single question only".

You asked, "Who among you is from Rampur?"

Both said in a mono-voice "Its me".

You were confused and asked "which road leads to Rampur?"

"This" both of them said in a monotone, but showed two different ways.

You realised your mistake.

The old man said, "Enough is enough. We cannot give you more opportunities. Ask your last question, and surely that will be your last question".

What could you ask them to know the right path to Rampur?

- 19) This is a very interesting question challenging your logical approach. People of SATYA Island always tell the truth. People of ASATYA Island always lie.

You met three people A, B, C but don't know from which island they are from. May be two are from one island, another one from second. Or, all the three may be from same island.

You ask A, "Are the other two are from same island?"

He says "Yes".

Then you ask same question to B. He gives the same answer.

Can you guess what C would answer to the same question?

Give logic behind your answer.



- 20) A prisoner is in jail. There are two doors, one leads to freedom one leads to death. There is a guard at each door. One guard always tells the truth, the other always tells lies. The prisoner is allowed one question to either of the guards. What is the question that will take him to freedom?
- 21) Once I met two people in the island and I asked them, "Is any of you a truth-teller?" One of them answered me. I am not telling you which answer he gave me, but with his reply I was able to know the answer to my question. What was his answer?
- 22) There are two kinds of people on a mysterious island, the truth tellers and liars. Two fellows A, B are having a quarrel at the market. one girl who passes by them asks A: "Are you truth-teller or liar?"

The answer is not audible. So the girl questions B: "What did A say?"

B answers: "A said that he is a liar."

Who is B... liar or truth-teller?

- 23) A valuable painting was stolen from a film studio. On that day, four people visited studio. They told the police as under.

Villain's friend: None of us stole. The painting was there when I left.

Director's brother: I arrived second. Painting was already gone.

Hero's chamcha: I was the third to arrive. The painting was there.

Heroine's mother: The painting was gone before my arrival.

Police knew with the help of a lie detector that all of them lied.

who stole the painting?

- 24) 3 code conduct violations are found by the election commission. One party influenced the voters with money and alcohol. One party tampered with Ballot boxes. One party made false promises.

All we know that one party each have violated one code each. Here are the investigation statements.

TDP said: *Congress* influenced the voters with money and alcohol.

YCP said: No. congress tampered with ballot boxes.

CONGRESS said: We neither influenced nor tampered with boxes.

It was found that 1. The party that influenced the voters with money is a truth-teller 2. The party that made false promises told a lie. Can you find out which code is violated by whom?

- 25) Dharmaraja, (truth), Suyodhana (lies), Thenali Ramakrishna, (truth sometimes) were sitting side by side, ~~when you visit them~~. You don't know who is who.

"Who is the guy sitting in the middle?" you asked the person sitting on the extreme left.

"Dharmaraja"

You ask the one who in the middle: "What is your name?"

"Suyodhana".

You ask the one at right: "Who is the person sitting in the middle?"

"Thenali Ramakrishna." You get really confused.

But with little thinking can you find out who is who. How?

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ANSWERS

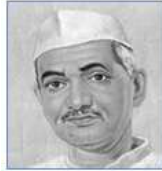
- 1) As both are lying, reverse their statements. Megastar is 56, and 6 years younger to Superstar, who must be 62.
- 2) A truth teller never says, "*I am a liar*". A liar also never says, "*I am a liar*". Hence this person tells the truth occasionally and lies some times.
- 3) Nobody, as *all* are lying. If they are all telling the truth, then all the three are culprits. Complicated answer. But logical.
- 4) If A is guilty, both **A and C** are liars and only **B** is telling the truth.
If B is guilty, both **A and C** are telling the truth and B is lying.
If C is guilty, both **A and B** are telling the truth and C is lying.
According the information given to us, **only one** is telling the truth.
Hence A is guilty.
- 5) B is guilty, as A and C are telling the truth. Same as the above analysis.
- 6) Nobody lied that C is guilty. Hence he is the culprit.
- 7) If A is innocent, he is telling the truth.
Then B's statement that 'Only one among us is telling the truth' cannot be correct.
Hence, A is the culprit. But this answer also appears to be vague, as under Narcotic test, both should tell the truth.
- 8) T is the thief. For logical analysis, go through the previous answers.
- 9) Check the question again. It says there is only 'one' answer. B and C are multiple answers. Hence A is the correct answer.
- 10) Let us see among A,B,C who is telling the truth. Let T stand for truth and L for lie.
 - If the colour of the horse is Grey: A (L), S (T), P (T).
 - If the colour of the horse is Brown: all are telling truth.
 - If the colour of the horse is Black: all are lying.
 - At least one should be a truth-teller and one should be liar.
 - Hence the colour of the horse is Grey.
- 11) Liar always lies. Hence no liar tells that he/she is a liar. Hence the husband is a liar.

- 12) This is jugglery of words in the question.
 'At least' one is lying. It means, both can *also be* lying.
 Since there is no conflict between what they said, either they both are lying or both told a truth. According to the question at least one told a lie. Hence both are lying. The brother is older. and the girl is younger.
- 13) Aiswarya Roy is the first. Let us see the logic.
 If Aiswarya is lying, Karishma Kapoor is also a liar.
 If Seeta is lying, either Preeti Jinta or Karishma must be a liar.
 According to the question, 'more than one cannot be liars'.
 If Priyanka is telling the truth, all are telling the truth or at least two are lying, which also does not fulfil our requirements.
 Only if Preeti Jinta lied, Aiswarya would be the first.
- 14) As Narada tells truth only on one day in a week, his statement on day 1 and day 3 both can not be false. Otherwise he tells truth on *more than one day* in a week. Also, all three statements are made on three consecutive days, statement made on day 1 and day 3 both can not be true.
 Thus, either the statement made on day 1 or day 3 is true and other is false. Also, the statement made on day 2 must be false i.e. day 1 is not Saturday, Friday or Wednesday.
 Let's assume that the statement 1 is true. Then from the statement 3, day 1 must be either Friday or Wednesday. But it is already deduced that day 1 is not Saturday, Friday or Wednesday.
 Hence, the statement made on day 1 is false and the last statement is true. Then from the statement 1, day 3 must be either Monday or Tuesday. But it is already deduced that day 1 can not be Saturday i.e. day 3 can't be Monday.
 Hence, Narada tells the truth on Tuesday.
- 15) The ring must be in the golden box, otherwise all the inscriptions would be either **true** or **false**. According to the information, one inscriptions must be true and at least one should be false.

- 16) The first piece of information says: Of any two people one must be honest. Then if you take 2 people as a group, there must be 1 honest man and other can be honest and / or corrupt. The second statement says that 'If you take any two politicians, at least one of them is corrupt.'

So 99 of them are corrupt. This satisfies both the statements.

Thank God, at least we have one true politician.



- 17) He must be from Rampur because he told at least *one truth* about the ~~truth~~/lie speaking quality of the two villagers. He cannot be a liar.

- 18) Ask the old man, "If I were to ask this young boy, '*whether the left road leads to Rampur, would he say 'yes' or 'no'?*'".

There are 4 probabilities.

Suppose (1) the left road really leads to Rampur and (2) the old man is a truth teller, he obviously says 'No', because the young man is a liar.

Suppose (1) the left road really leads to Rampur and (2) the old man is a liar, he lies about the young man (who always tells the truth) and says, 'No'.

Suppose (1) the left road does not lead to Rampur and (2) the old man is a truth teller, he obviously says 'Yes'. This is what the young man tell you to mislead you.

Suppose (1) the left road does not lead to Rampur and (2 If the old man is a liar, even then also he would say 'yes' to mislead you, because the young person always tells the truth.

The same reply comes even from the young man, irrespective of the fact that he is a truth teller or liar. Finally the conclusion is: Let it be any of them, if their answer is 'No', the road leads to Rampur or if they 'yes' its vice versa.

There is another simple way of questioning one of them: "Does this road lead to your village?". If it leads to Rampur, both say 'yes' and vice versa. Isn't it?

- 19) According to the information given to us, A says that the other two are from the same island.

Step 1: Suppose A is a truth-teller from *Satya* island, then both B and C must be either liars or truth tellers from same island,.

Step 2: Suppose A is from *asatya* Island, it means B and C are '*not*' from same island. Then *at least* one among them must be truth-teller.

Step 3: Same rule is applicable to B also.

Step 4: If A and B are truth-tellers, C must also be a truth teller. He says, "They both are from the same island", because it is the truth.

Step 5: If they are from different islands, then C must be a liar. Hence he will tell, "They both are from same island".

Final conclusion is that, whether C is a truth teller or liar, he gives the same answer.

Complicated, but after solving the previous puzzles, you might have understood the logic behind this answer.

- 20) By this time, you have already mastered how to answer these type of questions. Same answer to the question 18, "If ask the other guard if the door leads to death, what would he reply?"

- 21) If the person answered "Yes.", I would have never been able to identify them.

Certainly his answer was 'No'.

And more certainly, the person was a liar (and the other one was an honest man).

But how could I know this?

This requires some explanation:

If both were truth tellers, or if both were liars he would have said, 'yes'.

If he is a truth teller, even then ~~also~~ he would have said 'yes'.

He said 'No' means, he is a liar and other is a truth-teller.

- 22) By solving the above puzzles, you might have known by this time a simple fact that any person, Whether he is truth-teller or a liar, says 'I am a truth-teller'.

B says in the negative about A. Hence B is a liar.

- 23) Since every statement is **false**, let us reverse all of them and allot a number to each statement for our comfort:

Villain's friend: (1) One of us took the painting. (2) The painting was gone when I left.

Director's brother: (3) I was not the third to arrive. (4) The painting was still here.

Chamcha (5) I am not 3rd to reach. (6) Painting was already gone.

Heroine's mother: (7) Whoever stole the painting, he arrived after me. (8) The painting was still here till arrived.

As all the above are FACTS, let us examine them statement-wise:

8. The painting was still there when heroine's mother was there.
7. Person arriving after Heroine's mummy stole it.
5. Hero's chamcha is not the third to arrive..
- 6: by the time Hero's chamcha was there, the painting was already gone, so he didn't arrive first.
- 5: So Hero's chamcha got there second or fourth.
- 4: As two other members (Director's brother and Heroine's mother) arrived to see the painting, either Chamcha didn't get there second. So he no doubt arrived fourth.
- 3: This means Director's brother arrived first or third.
- 2: Since the painting was gone when Villain's friend left, he didn't arrive first. Otherwise, no member after him would have seen the painting. So Villain's friend went second or third and Chamcha arrived fourth. But since two other members (Director's brother and Heroine's mother) saw the painting when they arrived, Villain's friend didn't go there second, either.

So Villain's friend arrived third. In summary, Director's brother arrived first. Heroine's mother got there next and the painting was still there. So Director's brother was not the thief, and neither was Heroine's mother.

When Villain's friend arrived, the painting was still there. Hero's chamcha arrived last and discovered that the painting was gone.

So **Villain's friend** was the one who stole the painting.



24) The truth can be derived by two steps.

Step one: TDP said that Congress influenced the voters. According to the information given to us, the party that influenced the voters would always tell the truth.

And Congress is denying it.

Hence TDP is not a truth teller.

If TDP is a truth teller; it would not have told that Congress influenced the voters with money.

Step Two: The party that has influenced voters always accepts the truth.

Congress has not accepted it. Hence it has not influenced the voters.

Considering the above two logistics, YCP is the truth teller, and has influenced the voters.

According to its statement TDP made false promises

And Congress tampered with ballot boxes.

25) Suyodhana never tells that 'his name is Suyodhana' because he always lies. Even Dharmaraja also never misrepresents him as Suyodhana. Hence the middle person who claimed that his name is Suyodhana must be Thenali Ramakrishna.

Since Dharmaraja always tells the truth, he must be sitting on the right, as he told you the truth.

The remaining person is Suyodhana on the extreme left.

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LATERAL THINKING

- 1) You are shown three plastic boxes that contain grapes, oats and a mixture of both. You were told that all 3 labels were wrongly pasted.



You are asked to close your eyes, put your hand into any box of your choice and blindly take one fruit. You can now open your eyes, see the product in your hand. You are asked to re-paste the labels correctly. Can you? If so how?

- 2) A vending machine has three selections - Tea, Coffee or Coke (Either tea or Coffee) but the machine has been wired up wrongly in such a way that each button surely and certainly does not give what it claims.

The sales man gives a costly gift to the person who can tell which button belongs to which liquid, by spending minimum amount.

It's a sales promotion strategy.

If each drink costs 5 rupees, how much minimum money do you have to put into the machine to know which button gives which selection and of course win the gift?

- 3) Lateral thinking means, 'leaving no options'. Thinking from all probabilities rationally.

When an apple fell Newton thought, 'why should it come down, in stead of going up?' That is lateral thinking. Basing on this principle, answer this question:

There are 10 crows picking up grain on a floor. One is killed with a banging pistol. How many do remain?

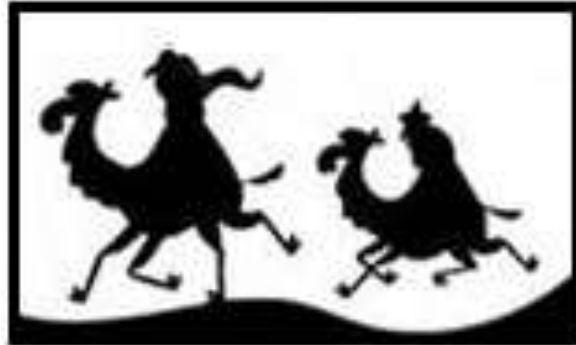
Choose from the following five answers: A. None. B. One. C. Nine. D. May be one or more than one. E. Cannot say.

- 4) Three switches, A, B and C are situated in the ground floor. One of them is connected to a dining room light in the third floor. You can't see the light (whether it is on or off) from the ground floor
How can you identify the correct switch? You can on and off the switches in the ground floor as many times as you want, but you are allowed to go to the third floor only once and announce the switch number from there.
- 5) A doctor and his son met with a car accident. The son with a brain injury was rushed to the hospital. In the operation theatre, the surgeon preparing to conduct the operation, saw the boy, shivered and said, "I can't operate, he is my son!" How could this be? (The boy is not adopted child or ex-wife's son).
- 6) This is more complicated than the previous question.
A doctor, his wife and their own son are going in a car and meet with an accident. Mother escapes unhurt, doctor's hand is broken, and other has a serious head injury and is taken to the hospital.
Mother is inconsolably weeping outside the operation theatre, and inside the male-neurosurgeon says, "I can't operate. He is my own son" How can this be? Don't think of step-father etc.
- 7). Junior NTR has a particular number among 1 or 2 or 3 in his mind. Tamanna is allowed to ask only one question to find out the said number. The hero will answer this question only with a single word "yes", "no", or "I don't know".



If she can find out, Rajamouli promises her a chance in his next big budget film. Can you help the heroine?

- 8) Three men go to a Lodge. The room rent is 30. They shared 10 each. Later the receptionist realised that the rent is 25 only. He sent back 5 rupees through the boy. They paid him 2/- as tip and kept one rupee each. In other words, each has parted with rupees 9 towards rent, total amounting to 27. The boy was paid 2 rupees. Total: 29. Where the remaining one rupee has gone?
- 9) Two boys love a sheikh's daughter. The sheikh is not interested in getting his daughter married to either of them. So he makes a proposition.



The two boys will ride their own camels in a race, and whose camel enters the city second, he will win the girl.

During the race, the two boys wander aimlessly for days, neither of them willing to enter the city first.

Thus the sheikh has his last laugh.

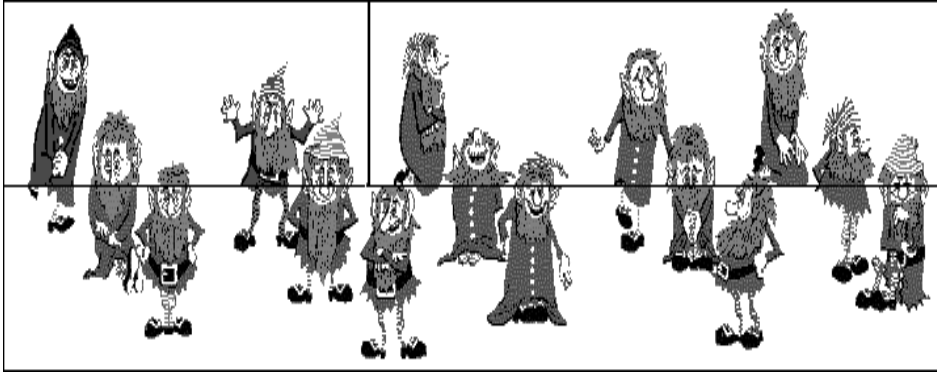
A wise-man observes their desperation and gives them an advice. He tells them something. Then they leap onto the camels and charge rapidly towards the city.

What does the wise-man advise?

- 10) A thief enters a shop and threatens the clerk, forcing him to tell the code to open the safe. The clerk says, "My boss ousts me if I reveal the code. But you will kill me If I don't tell. Hence I give you a hint. The code for the safe is different every day, and if you hurt me further, you'll never get the code". The thief thinks for a while and guesses the code. How does he do it?
- 11) In a star hotel tea and sugar are served separately. I mixed it and about to sip before noticing a fly. I returned. The manager bought the tea that tasted sweet and I found that he bought the same. I sued the hotel in a consumer court and won compensation beyond any complications.

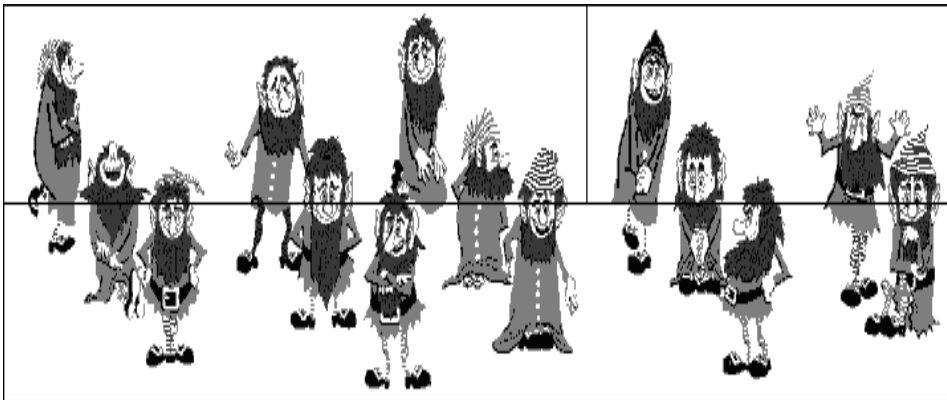
The question is not how I won the case. How could I recognise that the manager has bought the same tea?

- 12) You tied a flag to a balloon and released. High in the sky the balloon is going towards east from west. Which side the flag flutters... east to west or west to east?
- 13) There are 15 people in the photo below.



I cut the upper part as shown with two lines, and pasted it down. I get the following figure. I am surprised to see only fourteen men....!

Can you help me and tell where the missing man has gone? (If you do not believe print it, cut it, and try it out yourself!).



- 14) Vijay Maliya lived in London with his wife. One night, his wife complained of severe pain. He called his family doctor and told that his wife might be suffering from appendicitis.

The doctor was astonished because three years ago, when Malia was residing in India, his wife complained same type of pain. She was brought from India and the doctor himself had operated and totally removed her appendix.

This is the cause for doctor's dilemma.

But when investigation took place, Malia's apprehensions were true. it was diagnosed that his wife certainly had appendicitis problem. Can you explain how that was possible?

- 15) As you know, A, E, I, O, U are the vowels, 2, 4, 6, 8, 10, 12 are the even numbers. You have to pick up only *two cards* from the following 4 cards to prove that "Vowels have 'even numbers' on their reverse". Which two cards do you pick up from the above?

E	K	4	7
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- 16) A big-producer wanted to give film direction chance to one of his three assistant directors. All the three were dynamic. He wanted to test their intelligence and told them:

"I am giving you some money in a cover. Go out and open it. You will find some cash in it. You should purchase something that, when you bring it inside, it should fill my entire room. Who ever comes first will get the opportunity to direct our next film."

Holding the covers in their hands, all the three run out. As they open them, each finds ten rupee note in it.

They are disappointed as they don't get even grass for that money.

Suddenly one of them gets an idea and ultimately the film chance.

What might have been the idea? What can you get for 10 rupees, such a huge quantity to fill a room?

- 17) How many times do you think does your heart beat per day? 1000/10,000/100,000/10,00,000/ None of these.
- 18) In 2025, a new subject called 'Lateral thinking' was introduced to students in Indian universities, to develop their rational and intellectual thinking.

A question was asked and the students are instructed to write two pages article with illustrations and examples.

The question was, "What is courage?"

A student wrote just a sentence and handed over the paper.

He got the first mark.

What would have been the answer?

ANSWERS

- 1) Pick up whatever comes from the box labelled "MIXTURE". If you get a grape, then the box contains only grapes, as there cannot be mixture in that bottle (because all are wrongly pasted).

Write "grapes" on it.

Now you are left with two bottles with titles 'oats' and 'Grapes'.

The box with the label "oats" cannot have grapes in it. You have already found the grapes box. Hence write "Mixture" on it.

Obviously the third bottle is oats.

- 2) Just 5 rupees. That's enough. Surprising?

But yes.

Place 50p and push the button for Coke.

There are only 2 possibilities.

It will give either Tea or Coffee.

If it gives Tea, then the button named 'Coke' is Tea.

Now we are left with two buttons. Because coffee cannot be in coffee vase, it must be either Coke or Tea. We have already found where Tea is. Hence it is coke. Take the gift from the sales man.

- 3) The correct answer is "Can't say". As said earlier, lateral thinking involves leaving no options and considering all probabilities.

All the crows may fly away with the sound, but 'Zero' is not the correct answer, as one dead crow would be there on the floor.

'One' appears to be a correct answer, but lateral thinking means not leaving anything to escape logic. There may be some deaf crows. You may argue that those deaf birds may also fly-away noticing other crows. Then they can be deaf and blind also.

One courageous crow may stay back to eat the flesh of the dead.

Few crows may die due to heart attack by thumping pistol sound.

There is one more probability. What happens if the dead crow is the child of a dead mother crow? Or one may be is the companion of the dead one.

With all this inference, the conclusion is: 'Can't say'.

Among all the given answers, this appears to be the most logical one.

- 4) Switch on A for few minutes and switch it off.
Switch on B, and rush to the third floor.
If the light is on, the switch is B. If the bulb is hot, it is A. If there is neither light nor heat, then the correct switch is C.
- 5) The surgeon is his mother.
- 6) The grand father, father and the son are doctors. Son has his hand broken and his father has head injury. The neurosurgeon (grand father) said, "I cannot operate on my son".
- 7) The girl can ask the boy like this: "I have $1\frac{1}{2}$ or $2\frac{1}{2}$ in my mind. Is the number that you thought, larger than the number I have in mind?"
If the boy answers "yes" his number is 3..
"I don't know" means 2
And "no" means 1.
- 8) The answer is in the way the question is worded.
You cannot add all the amounts to arrive at the balance with what someone else has 'paid'. Add up all the expenses. Lodgers, receptionist and the Boy received 3, 25 and 2 respectively, total being 30. It is a simple equation.
- 9) "Whose camel enters the city second, he will win the girl" is the offer. The wise man advises the brothers to change their camels. The 'owner' of the camel that enters the city second, is riding the other's camel. To win the girl he should defeat his own camel. That's how they rush to the finishing line, to see that their own other camel stays behind.
- 10) The code is "*DIFFERENT*" The clerk told him this indirectly.
- 11) In a star hotel tea and sugar are served separately. I mixed it and about to sip before noticing the fly. The manager bought the tea which tasted sweet and I found that he bought the same.
- 12) As the speed of the air and the balloon is the same, the flag does not flutter. It would be 'still' without any movement.
- 13) The trick of this puzzle is that every man has grown a little bit in the second figure. The "missing" man is divided among the other men who became taller... However, to really grasp it, take your time and study the figures, because it does look like magic...!

- 14) You have to pick up E and 7. You need not pick up 'K' because you are not concerned what is behind *non-vowels* and *even* numbers. For that reason only, 4 also need not be picked up because; even there is no vowel, it does not matter. The question is just to prove that vowels have even numbers on their reverse, and *not the vice versa*.
- 15) The doctor earlier operated was Malya's first wife from India. This lady is his second wife from England.
- 16) A candle and a match box, to fill the room with light.
- 17) Average heart beats in normal conditions are more than 30,00,000 times.
- 18) The student wrote, "This is courage". What more illustrations do you require. And that is lateral thinking.

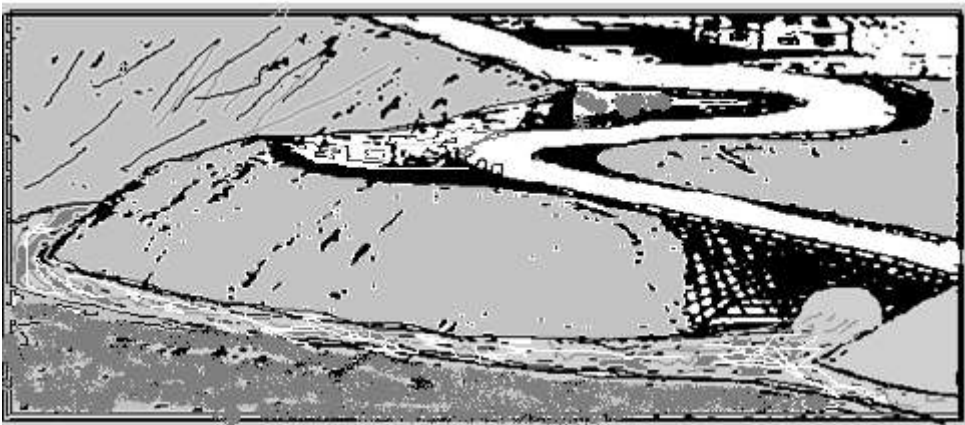
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COMPLICATED LATERAL THINKING PUZZLES.

- 1) A flock of sheep was going down on a narrow highway. There was a huge hillock on the left side, and a deep valley on the right. A torrent river was violently flowing down the valley.

As the Sheppard was steering his herd, a truck came from behind blowing the horn.

The young driver was in a rush to take his ailing mother to the hospital from his village. He urged the Sheppard to move the sheep aside, so that he could pass through.



The Sheppard declined to do so, fearing that the cramped sheep dreaded by the horrifying sound of the truck, might panic and fall down into the overflowing waters.

The boy explained the situation. T

he shepherd understood but there was no other way for the driver, except to follow the sheep slowly from behind till the road widens, which would take another half an hour.

The condition of the ailing mother was deteriorating. Sensing the severity of the situation, the Sheppard was struck by an idea. What was the idea?

- 2) A 16 meters cable is attached to two 15 meters high pillars. At its lowest point, the cable hangs 7 meters above the ground. What is the distance between two pillars?

- 3) This story was written by me around 50 years ago when I was 18. This was my first story published in a children magazine 'Chandamama' in 1966. Solve this riddle:

Unable to find any food or charity, a beggar prayed "O God! Give me something. I promise to offer you half of what I get today."

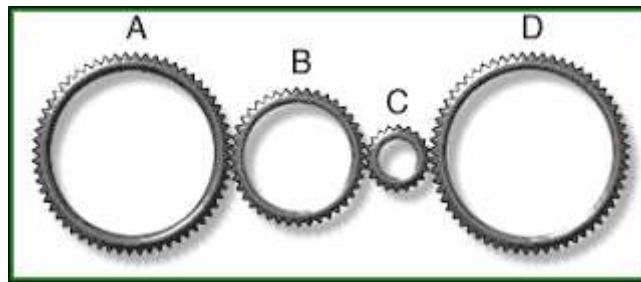
Amazingly he found a purse containing two hundred rupees. He was in high spirits and spent everything by evening. From next day his innersole started warning him about God's curse.

As days passed, his agony increased. Then one night he had an idea, and implemented it. Without paying a single pie to the God, he was relieved from his tension.

What might have been the idea?

- 4) As shown in picture, there are four gears with the following specifications: Gear A has 60 teeth. B 40, C 20 D.

Gear A makes 15 turns 60 per minute. What is the relative speed ratios of Gear A, B, C and D?



- 5) A young and energetic boy married an ugly, poor and unhealthy orphan girl. Pleased by his philanthropic act, an angel offered him to choose for spouse *one* of the three: Beauty, Money, and Health.

What should he ask for?

- 6) Pleased with his answer and unselfishness, the angel gave good health to his spouse. Now the angel wanted to make her the most beautiful woman in the world, but only for 8 hours a day. she asks him to choose. Which time should he prefer? Morning? Afternoon? Evening? Or Night?

- 7) We have 11 balls of which two are radioactive. We have an electrical box in which if we put the balls, it can tell us whether there exists a radioactive ball among them or not. Using this tool is very expensive. So how can you find two radioactive balls from among 11 balls, with minimum number of trials?
- 8) When Sruthi Hassan stepped into Bollywood, many heroes fell flat for her. Some were desirous, and for some it was platonic love. One of them found a sister also in her.



Shaheed kapoor finished before Hritik Roshan's fall, but behind Akshay Kumar. Emran Haashmi finished before Salman but behind Hritik Roshan. Who was first to fall in love for Sruti, and who was the latest? What was the order?

- 9) Ten Indian and same number of American couples met in a party. Indian ladies greeted men with a namasthe. All male members shook hands with other gents and American ladies, with the exception that American gents did not shake hand with their wives. All American and Indian ladies shook hands among themselves. How many shake-hands took place in total?
- 10) An item song dancer is driving in the middle of the desert (don't ask why she went there alone).

While listening to music and driving, suddenly her left rear side tyre becomes flat. No hero to help there And hence she starts doing self-help business.

While removing the tyre, she accidentally drops all nuts (the nuts that hold the tyre to the wheel) down a hole in the sand.

The hole is few feet deep and she knows how dangerous to dig the hole, as a poisonous rattle snake may be sleeping therein.

She'll die of thirst if she can't find a way to put that spare tire on securely enough to drive out of the desert.

Just using what is normally available in any car; can you come up with at least two ways to solve this problem?

- 11) Anjaneya burnt the ashokavana. He was caught and made to stand before Ravana, who was sitting on a throne. Anjaneya challenged: "I bet, I can make you stand, before I walk around you three times."

Ravana replied, "May be you'll prick me with your hand or knife".

Anjaneya smiled, "I won't touch you either directly or with any object. By your own choice you will get out of the chair".

Ravana thought for a while and said, "I accept the challenge. If you make me stand, I give back your master's wife to you. If you fail, she will be with me forever."

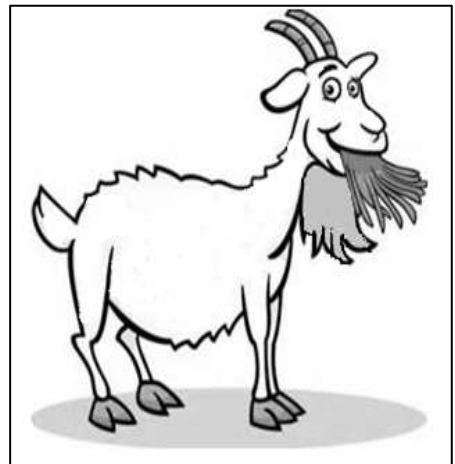
Anjaneya won the challenge and got back Sita. How?

- 12) Virat Kohli is to play a charity show in a remote African country for the orphan kids. A car has to carry him across the desert. There is no petrol station in the desert and the car has enough petrol space only for $\frac{1}{2}$ way across the desert. You are not allowed to carry fuel in separate cans due to fear of terrorist activities. Blessing in guise is that there are also other identical cars that can transfer their petrol into one another.

How can we get Kohli across the desert?

- 13) You may not know that grass grows at the rate of 0.06 to 0.20 inches in a day on a fertile land. But you surely know that goats like to eat fresh grass. Here is your problem.

A good-at-heart producer has one acre land. He wants to shoot some part of the song there. There is lot of grass and he wants to get it cleared. The shooting is scheduled next month. He has 25 days day time. He doesn't want to sell the grass, but asks a Sheppard to take his goats to the ground and have the grass cleared. 100 goats clear grass from one acre field in 20 days.



If it were 50 goats, it does not take 40 days as per mathematics, but 60 days, because grass grows every day.

How many goats are required if the producer wants the field to be cleared in 25 days:-?

- 14) A boy is desperately standing at the top of a 7 floor building and needs your help. His girl-friend is 100 meters down in the first floor. He has a 75 meters long rope and the only way he can come down is through the rope. Don't ask him why he reached to the top of the building? May be problem with guard at the gate.

We want you to advise the boy how to reach 100 meters down with the help of the rope. Find out the best way for him to reach his GF.

You can cut the rope anywhere you want, you also can tie or hook it at any point on the building, but you can't ask him to jump and of-course don't even think about the stairs.

- 15) This puzzle really tests your lateral thinking.

Abdul kalam was invited to a college in United States, where the world's top students study. He wanted to test them. He said "I thought of two consecutive numbers from 1 to 10. For example, it can be 2-3, 9-0 or 4-5. I will call two of you and tell each student 'one' number secretly. I give one minute time. I want you tell the two-digit number that I thought. There should not be any secret signs, huf-hufs etc. between the two".

Two Indian students, Ram and Shyam were called on to the stage. He told each one number. After few seconds silence, Ram said, "It is 2 and 3"

Kalam said, "Yes. Indians are great. You are correct".

The auditorium vibrated with claps.

Really mind-bobbling. isn't it? But how could Ram tell?

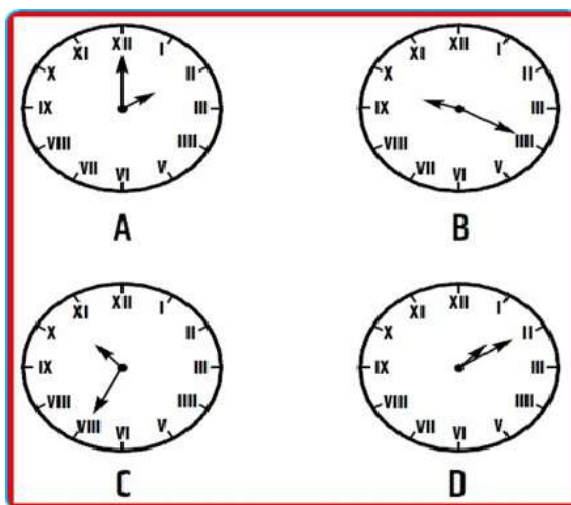
- 16) Three heroines, Chandra Haasini, Kumuda Bandhavi, Susmita drank heavily on the last day shooting and broke a window glass.

The greedy producer enquired but could not point out towards anybody. One of the girls felt guilty and wanted to reveal the name.

Next day the director received a slip: "Sorry. One of us broke the glass. I confess and tell you who broke it. Let me tell you the sequence of events. The moon was full. We were full. We had a bet, as to who can laugh loudly among us. Snickering at the top of her voice, one among us throw the whisky glass on to the window glass".

Reading the letter, the director also smiled. Now he knew who broke the window plane. How?

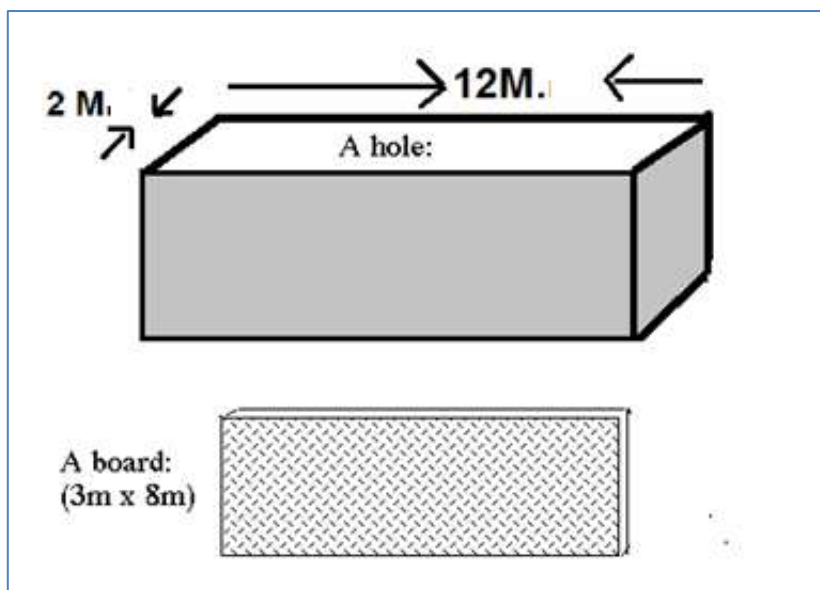
- 17) There is an odd clock among the four here. Which one is that? It is not as easy as it appears to be. Concentrate. Don't hurry .



- 18) You are given a 3m x 8m board. to fill the hole of 2m x 12m (see the diagram below).

Show how to cut the board to fill the hole?

You are permitted to cut the board only once into just **two** pieces.



- 19) Let us end this book with a pooja puzzle. A teenaged priest wants to become a mathematical genius but is poor even in adding two plus two. Every day he used to pray the deity to make him a whiz-kid in maths.

Years passed but there is no positive result. Other gods appeal the Almighty Mother to bestow her blessings on the boy but the Goddess Kali is reluctant saying that “success is accomplished only through genuine work and not just by praying Gods”.

Later, convinced by his continued sincerity, she wants to teach him maths through practical training. The Goddess tells him one day, “As you know there are three adjacent temples for my sons, Vishnu, Siva and Brahma. Go and anoint them with equal number of flowers, and that is my first lesson to test your patience and determination to acquaint with maths”.

The priest was surprised, “What is there to learn in this? I will take 30 flowers and anoint each God with 10 flowers.”

The Goddess smiled, “The twist is that when you wash the flowers in the pond, they multiply twice in number. Now here are the three conditions. Before going to each temple you should wash the flowers in the pond. Secondly, my three sons are to be offered ‘equal’ number of flowers. Thirdly, there should not be any flowers left out in your hand when you leave the last temple.”

The priest first goes to Vishnu's temple with ten flowers and washes them. As they become 20, he keeps 12 before Vishnu, and goes to the pond with remaining 8. The flowers multiply to 16. He keeps 12 at the feet of Shiva. And then he realises that if he washes the remaining 4 flowers, they would become only 8.

He understands that his initial take of 10 flowers is a mistake.

How many *minimum number* of flowers should he take with him to start with and how many should he offer equally to each God?

-o0o-

ANSWERS

- 1) Sheppard asked the boy to stop ignition and put off the sound. He reversed his sheep and navigated them to the rear-side of the truck.

Then he asked the truck to go ahead.

- 2) It is a tricky question.

The side-by-side pillars are 15 meters high, and the cable is hanging 7 meters above the floor. That means the 16 meters cable goes 8 meters down and 8 meters up again.

Hence the distance between the pillars is “zero” meters.

- 3) He went to the temple and prayed: “God! Give me another two hundred rupees today. I share half of it”.

As he did not get, he went again and said, “Thanks for settling our account and adjusting past dues”.

- 4) The 2 will rotate at Same speed. Gears of the same size always rotate at constant speeds despite smaller or larger gears in between them.

- 5) Asking for her beauty and money is selfishness. For ‘her’ comfort he should ask for her health.

But there is a better answer. Check up with the next question.

- 6) Who is he to decide? He should give the option to his spouse to decide, respecting her individuality and self-esteem..

- 7) Divide them into 5 groups of two balls each.

If one group among the five reacts positively, and the other groups show negative, the answer is easy. That group itself is comprised of two radioactive balls.

If two different groups (say A and D) are positive, then you require testing each group once.

Thus total 7. This is what you find in internet answers.

But there is a better way.

Divide into 4 groups of A,B,C,D (3 + 3 + 3+ 2). Test each group. Suppose the radio-active balls are in A and D groups. With another 2 tests, you can find their location.

Total 6 tests.

- 8) Akshay Kumar- Saheed Kapoor – Hritik Roshan – Emran Haasan – Salman.

- 9) Here is a small tip to solve this puzzle.

Suppose there are four people, how many shake hands would be there among them? 1st ~~man~~ person shakes hands with the other 3; and 2nd person with other 2 and the 3rd person with the last one. Total $3+2+1=6$.

In other sense, it is $(3) \times (4/2)$. This is called $(N-1) \times (N/2)$ formula.

Basing on this principle calculate after separating the Indian ladies. The other 30 people shook hands with each other ($29 \times 30/2$). That is 435. Deduct 10 shake hands as American ladies did not shake hands with their husbands. The figure is 425.

Now add the shake hands of all Indian ladies among them-selves and with American ladies. Work out.

- 10) Two of the many ways to come out:

1. Break a music-speaker and pull-out the magnet. Then pull few feet of wire from the trunk or any other part of the car (where the wire isn't necessary for the car to run).

Knot pieces of wire together, tie the magnet to the end of it and lower it down the hole. The magnet should pick up the lug-nuts easily.

2. Remove one lug-nut from each of the other three tyres and use them to fix the spare tyre.

This should be sufficiently secure until you reach a nearest town.

- 11) After the heated discussions and betting, Anjaneya turned around Ravana twice and stopped.

Confused Ravana was glaring at him. Anjaneya said: "I'll come back to take the third round after preparing for the war, may be after a fortnight. Sit here till I come". Ravana accepted defeat without war.



12. We need 4 cars (including the car with the V.I.P.). Let us name the other cars A,B,C. All 4 cars start with tank-full fuel. At $1/6^{\text{th}}$ of the way, all four cars are $2/3^{\text{rds}}$ full. Car C sacrifices its $2/3$ fuel and fills tank-full the other two cars A, B ($+1/3$, $+1/3$).

Car C is left behind. Now A and B are tank-full. By the time they reach another $1/6^{\text{th}}$, two cars are $2/3^{\text{rds}}$ full.



Empty B to fill up A (tank-full) and Kohli's car ($2/3^{\text{rd}}$). Now car A is tank full, and Kohli's car is . Leave B.

By travelling another $1/6^{\text{th}}$, you reach half-way mark. At half way, car A is $2/3^{\text{rds}}$ full, Kohli's car is $1/3^{\text{rd}}$. Fuel from A goes to Kohli's car. It is now full and can make the other half of the journey. Really tedious journey.

13. It becomes complicated working on algebraic way. Let's make it simple. Assume that in 1 day 1 goat eats 1 unit of grass.

In 1 day 100 goats eat 100 units.

In 20 days 100 goats eat 2000 units of grass and thus clear the field according the information given to us(a)

According to second equation, 50 goats clear the field in 60 days. That means they eat 3000 units in 60 days(b)

It means the extra growth of grass in 40 days is '1000 goat-units'.

- ∴ 25 units of grass grow every day. This is the first step.

We know that to eat this extra grass, we require 25 goats a day.

If you are clear with this clarification, let us solve the question.

First we should know, how much goat-units of grass is present on the first day. it can be worked out like: (Total grass eaten in 20 days) minus (Growth during 20 days).

$2000 - (20 \times 25) = 1500$ goat units. According to our information, the field is to be cleared in 25 days.

Suppose the field is to be cleared on first day itself, we require $(1500 / 25) = 60$ goats.

Add 25 more goats to eat extra grass every day during these 25 days. Total 85 goats are required. Complicated, but funny, testing your intelligence.

14. Step: 1. Cut the rope into two pieces of 50 and 25 meters.
 Step 2. Nail a hook at the top of the building.
 Step 3. Hang the 50 meters rope at the middle from the hook in such a way (Ω) that it would be hanging down to 25 meters both sides.
 Step 4. With the help of it, descend along with the small rope.
 Step 5. When you reach the end tie second rope there.
 Step 6. Now take the long rope, away from the hook by pulling it down.
 Step 7. Come down with the help of 25 meter rope. Now you are 50 meters away from the ground.
 Step 8. Use the 50 m rope to descend completely to the first floor.
DONE..!
15. It was really a tough question posed by Abdul kalam, to the students. Lets try to solve it.

Ram's number was 2. He doesn't know Syam's number.

But he certainly knows a fact that, If Ram had the number 1, he would have immediately solved it straight away, because the other number cannot be other than 2.

As Ram was silent, Syam (having 2 with him), told that the numbers are 2 and 3.

The same principle applies to 3 and 4 also.

If Syam had 3, then he would expect Ram to have either 2 or 4. But if Ram had 2, he could have immediately guessed the answer (because Shyam was silent, so could not have had 1 or 2).



YOUNG ABDUL KALAM

When Syam discovers that Ram is silent, he can rule out 2 as the answer. That is how he will tell 3-4.

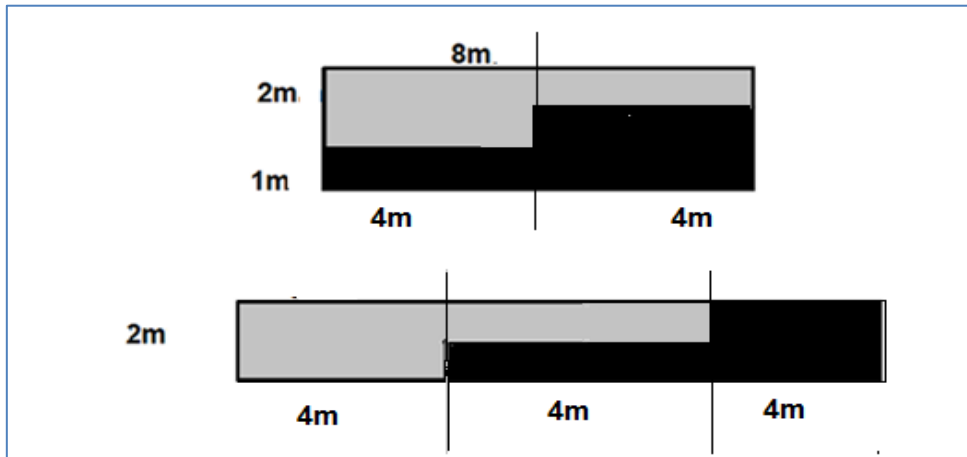
Exactly the same analysis works for other end numbers like 8-9; 9-10.

16. Chandra means moon. This is an indirect hint. But Kumuda Bandhavi also denotes moon. That's why the informer added 'smile'. Smita means smile. But Susmita is not associated with moon.

Only one girl's name represents both moon and smile.

Chandra Haasini.

17. Instead of 7, it is 8 in clock C. we normally look at the hands of the clocks to see the difference. Same happens with life also. When we face a problem, we don't look at the root-cause of it. Instead, we try to blame our fate or helplessness.
18. The area of the hole is 24 sq. meters. The wood piece is also of the same area. Hence it can be possible. Look down..



19. Let us assume total number flowers as x . To each God 'y'.

After first wash: $2x$.

To first God: y .

Remaining: $2x - y$.

Next wash: $2(2x - y)$.

After serving second God: $2(2x - y) - y$.

Final wash: $2\{2(2x - y) - y\}$. Final number should be 0.

$$\therefore 2\{2(2x - y) - y\} - y = '0'.$$

Simplify it. $8x - 7y = 0$. $X = 7$. $Y = 8$.

The priest carries 7 flowers that become 14 in the pond and offers 8 flowers to first God, the remaining 6 becomes 12 on washing, offers 8 to second God, washes the remaining 4 to make final 8.

If you find any error or complication in understanding a question or feel that a particular answer requires more explanation, write to yandamoori@hotmail.com with your address. For pointing out a genuine mistake for a good suggestion, you would get a gift from the author.

YANDAMOORI VEERENDRANATH

DEVELOPING RIGHT BRAIN



A university introduced a new subject 'Lateral thinking'. For a question, 'What is courage?', the students were supposed to write a 2-page answer with examples and illustrations.

A girl wrote just one simple sentence* and got first mark. What might have been her answer?

. . .

Every student has two brains, left and right. Psychologists say, Right brain is for intelligence and shrewdness; and Left is for memory.

It does not matter whether you are a left-brain student (good at Medicine, Law, Literature) or right brain oriented (Maths, Engineering, Chartered accountancy), brain is the only organ that never wears out. It works more vigilantly the more you quiz it.

. . .

For students who are not able to perform well in interviews, the reasons may be... tension and lack of spontaneity. These mystifying and funny puzzles are designed to sharpen your imagination.

This book creates interest to those, who are averse to mathematics and reasoning. It is a fun-game when family members sit together, solve puzzles, and tease each other; parents awarding children for correct answers.

- Publishers

* She wrote, 'This is courage'.

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