

Test Funda

Puzzles-of-the-week

BOOK 1



We all fit like pieces of a puzzle. Everybody's input and their journeys and where they've been help put that puzzle together.

- Melody Thorntonzz

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PREFACE

For the past couple of years, CAT and other MBA entrance exams have shown a trend towards questions testing a student's ability to apply Mathematical Principles and Analytical Reasoning to solve problems. The unpredictable nature of CAT has ensured that most students are never fully prepared to ace the exam. This is because students limit their preparation to just the learning and practice of core concepts of Mathematics, Verbal Ability and Data Interpretation & Logical Reasoning. However, to bell the CAT, divergent thinking is required which is why experts also recommend solving an eclectic mix of Puzzles, Crosswords, Riddles and Brain Teasers. These enhance the problem-solving skills of CAT aspirants and encourage them to think out-of-the-box.

We, at TestFunda.com, feel that solving puzzles not only helps sharpen one's logical acumen, but also gives immense pleasure and satisfaction. The puzzles in this book will give students that extra edge and confidence needed to be ready for any surprise that CAT might throw their way.

We are sure that our readers will benefit greatly from these books. They shall provide a much-needed break from long study hours as well as high-quality cerebral recreation.

Puzzle #01: The Gold Chain

A wealthy man needed to pay the mason building his house. He was running low on cash, so he decided to pay the mason with a gold chain with 7 links. The mason's fee was equivalent to one gold link a day. The wealthy man needed to pay the mason each day, as otherwise he would stop working. If he overpaid, the mason might run away with the extra payment.

The wealthy man did not want to make too many cuts in the chain as he wanted it back once he had the cash to pay the mason in cash. What is the minimum number of cuts that the wealthy man needs to make in the chain?

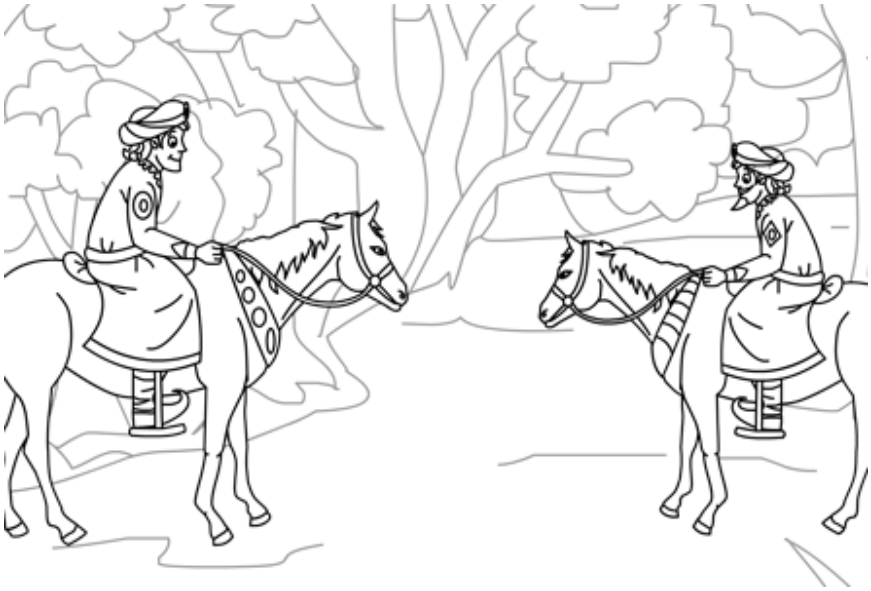


"A mechanical puzzle is a self-contained object, composed of one or more parts, which involves a problem for one person to solve by manipulation using logic, reasoning, insight, luck, and/or dexterity." - Jerry Slocum

Puzzle #02: Two Horses in a Race

A king was dying and devised a strange plan to determine which one of his twin sons would inherit the throne. He told his sons to ride their horses in a race, and whichever horse crossed the finish line LAST would win the throne for its owner. His sons didn't know what to do, and wandered aimlessly for days. Neither of them wanted to cross the finish line first. Finally they met a sage who gave them some advice.

Immediately, the brothers leapt onto the horses and galloped towards the finish line. What was the advice?



"Conditions for creativity are to be puzzled; to concentrate; to accept conflict and tension; to be born everyday; to feel a sense of self." - Erich Fromm

Puzzle #03: Two Jars with Marbles

Once, Birbal was returning from a visit to a far land when his ship capsized. He was taken prisoner by a mad king in a distant land who had heard of Birbal's intelligence. The king wanted to see how intelligent Birbal really was. He gave Birbal two large jars - one with 50 red marbles and the other with 50 white marbles. He allowed Birbal to move the marbles around between two jars. The only condition was that each of the 100 marbles should finally be accounted for in one of the two jars.

After Birbal finished, he would be blindfolded and the two jars will be shaken. Then the king will choose one of the jars at random and give that jar to Birbal. Birbal will have to pick one marble out of that jar. If he picks a white marble, he will be set free and sent home in comfort; if he picks a red marble, he will be given 100 lashes and thrown in a boat without food or water.

What should Birbal do to maximize his chances of picking a white marble?

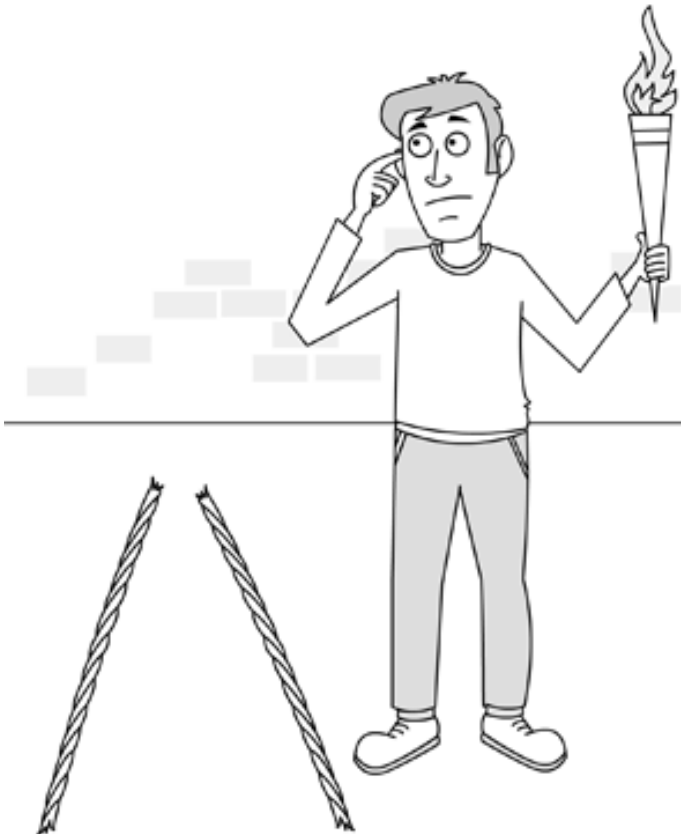


"Love is like a Rubik's Cube, there are countless numbers of wrong twists and turns, but when you get it right, it looks perfect no matter what way you look at it" - Brian Cramer

Puzzle #04: Timing with Ropes

You have two ropes, each of which takes two hours to burn if lit at one end. These ropes are not homogeneous and some parts of the rope burn more quickly than the other parts. If you cut the rope into half, you cannot assume that the half rope will take one hour to burn.

Use these ropes to measure 1hr 30 min.



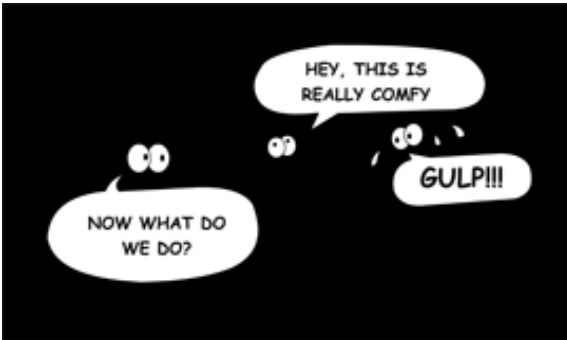
"The problems of puzzles are very near the problems of life, our whole life is solving puzzles. If you are hungry, you have to find something to eat. But everyday problems are very mixed - they're not clear." - Erno Rubik

Puzzle #05: Three Scientists with Hats

Three scientists went on an expedition in the Amazon forests where they were captured by cannibals. The cannibal chief liked having fun, so he devised a game that gave the scientists a chance to survive! He took them to a tent where he had 3 white hats and two black hats (no points for guessing where he got the hats from!). He then put one hat on the head of each of the scientists (since there were 5 hats, 2 hats remained unused). There is no light in the tent and there is no way the scientists can see or figure out which hat is which.

He told the scientists that they have to walk out of the tent in a queue, and then any one of them has to guess the colour of the hat on top of HIS head. They are to stand so that the third scientist can see the colour of the hats on the two scientists in front of him. The middle one can only see the colour of the hat on the scientist in front of him. The first scientist cannot see anyone's hat. The scientists were given 10 minutes inside the tent to discuss their strategy. Once they walk out, the only thing any one of them is allowed to say is "The colour of my hat is" If the colour is correct they will all be set free. If the colour is wrong or anyone says or does anything else, all of them will be cooked and eaten!

The scientists went out, they stood there for some time, and then one of them said "The colour of my hat is"! What colour was his hat?

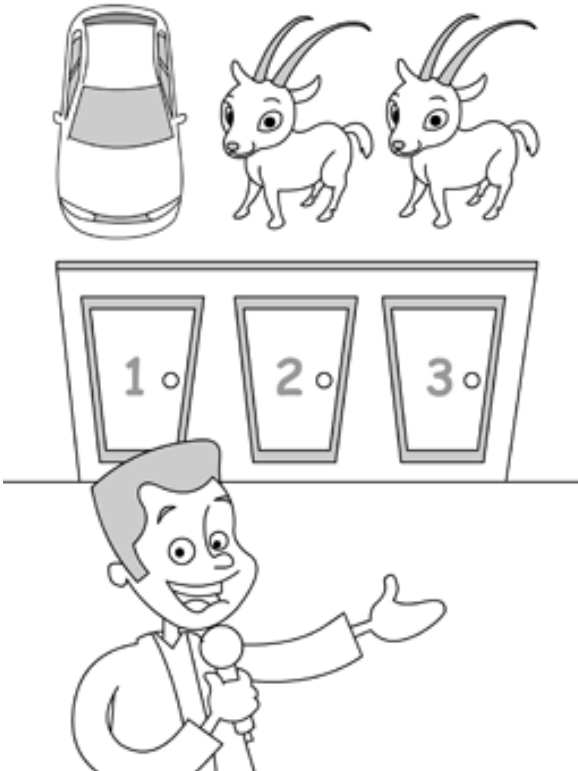


"Without having all the pieces of the puzzle together, it is difficult to agree on one piece."
- Rob Portman

Puzzle #06: The Game Show with the Goats

You have reached the final of a game show. You are just one step away from a shiny new car. The host shows you three closed doors. Behind one of these doors is the new car; behind the other two are goats. The host knows which room contains the car.

You are asked to choose a door. After that, the host opens one of the two OTHER doors - one, which he knows, definitely has a goat. Now the host gives you a choice - you can stay with the door you selected or switch to the remaining unopened door by paying 500 rupees. Should you switch? Why?



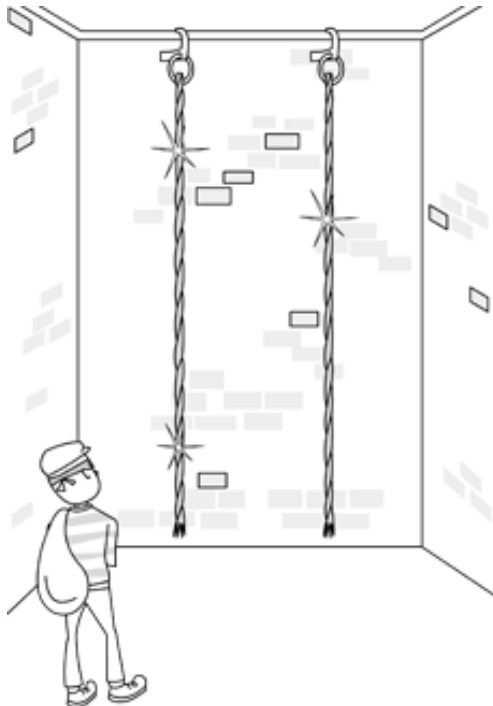
"We're just going to see if we can make the puzzle fit together . . . we'll just have to take it a step at a time." - David Hamilton

Puzzle #07: The Rope Trick

An acrobat thief entered an ancient temple to steal treasure. Inside the temple he saw a huge room with straight walls and no windows. The ceiling of the temple was 100 metres high. In the centre of the ceiling there were two hooks a metre apart. From each of the two hooks, a thick gold rope was hanging. Each rope reached the floor of the temple. There was nothing else in the room and the thief had nothing but a knife with him.

He would like to steal as much of the gold rope as possible. He can easily climb up the rope, but he cannot jump down from more than 7 metres above the ground.

How much rope can he steal?



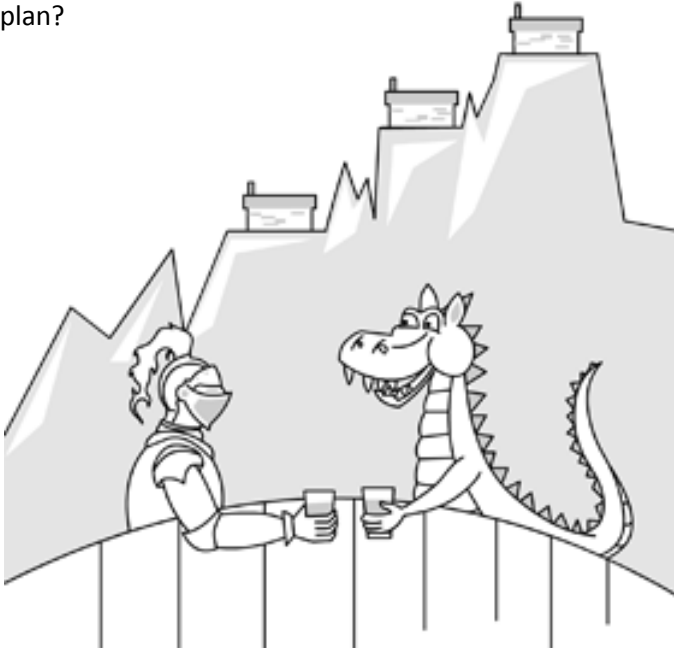
"Puzzles are like songs - A good puzzle can give you all the pleasure of being duped that a mystery story can. It has surface innocence, surprise, the revelation of a concealed meaning, and the catharsis of solution." - Stephen Sondheim

Puzzle #08: Dragon and the Poisoned Wells

A dragon and a knight live on an island. There are seven poisoned wells on the island. These wells are numbered from 1 to 7. If someone drinks from a well, he can only neutralize the poison by drinking from a higher-numbered well. Well number 7 is located at the top of a very high mountain on the island and only the dragon can reach it.

One day the dragon told the knight that he wanted the island all for himself and that they should have a duel. He set the following conditions. Each of them has to bring a glass of water to the duel. Then, they are supposed to exchange the glasses, and drink from the other's glass.

The dragon thought that the knight was doomed to die. But the knight devised a clever plan so that he will live and the dragon will die. What was his plan?



"It is one of man's curious idiosyncracies to create difficulties for the pleasure of resolving them." - Joseph de Maistre

Puzzle #09: Never Ask a Woman her Age

Six women have gathered at a friend's house for afternoon tea. While they are chatting, the doorbell rings. There is a census officer at the door who wants to note down their ages. The women are scandalized at the thought of revealing their true ages. Then the census officer offers a compromise. He says that his requirement will be fulfilled if he can get the average age of the women. Can you think of a way by which the census officer can know the average age of the women without any of them knowing anyone else's age?

Condition 1 – The women need to know the average age that the census officer puts in his report.

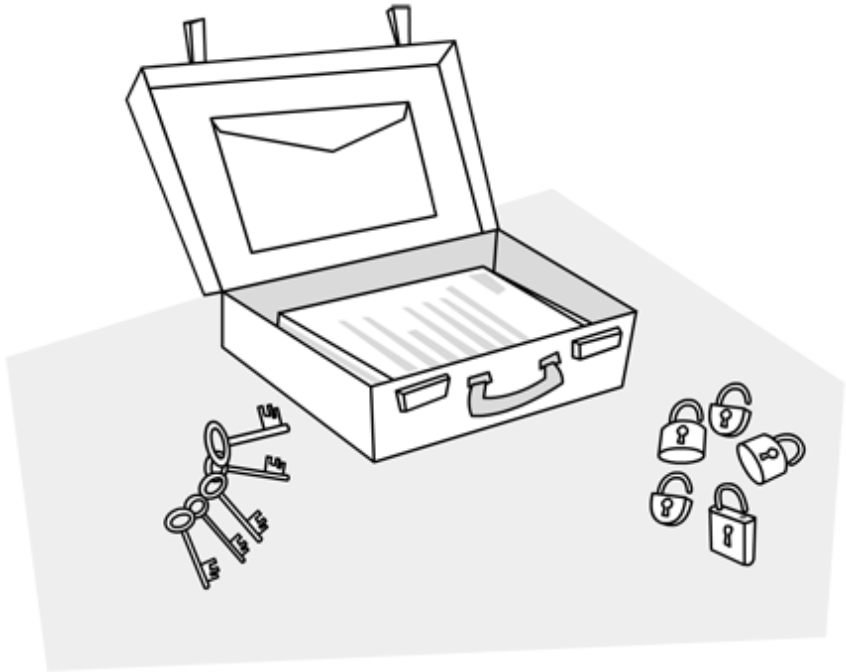
Condition 2 – The women are really paranoid - they do not want anyone else to know the numerical value of their ages, even if you cannot match the age with the actual person.



"Building a business intelligence strategy without a complete EIM solution is like trying to complete a puzzle without all the pieces." - John Schwarz

Puzzle #10: Secret Documents

A businessman in one city needs to send secret documents to his business associate in another city. There are spies trying to get hold of these documents. The documents need to be sent in a case. If the documents are sent in an unlocked case then the documents will be stolen. Anything else in an unlocked case will also get stolen. Both of them have many locks and many cases. Neither of them has the keys to the other person's locks. How does the businessman send the documents?



"A trial is like a jig-saw puzzle and closing argument is when the lawyers put the pieces together."- Erwin Chemerinsky

Puzzle #11: Ancient Treasure

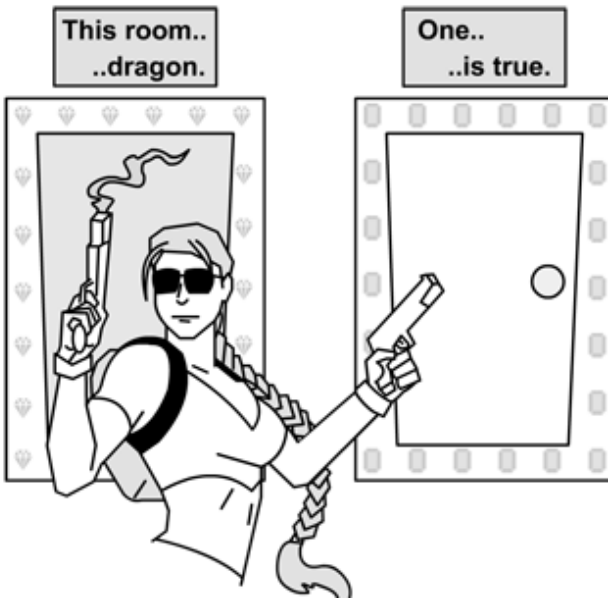
Lara Croft has just unearthed a pair of ancient treasure rooms. According to the legend, one of the rooms is filled with unimaginable treasure and the other has a fire breathing dragon that will eat anyone who opens that door. One room has a silver door studded with diamonds and the other room has a gold door studded with rubies.

Each of the doors has an inscription on top. The inscriptions say:

Silver Door: This room contains the fire breathing dragon.

Gold Door: One of the inscriptions on these two doors is true.

Which door should Lara open?



*The nice thing about doing a crossword puzzle is, you know there is a solution - Stephen
Sondheim*

Puzzle #12: Crossing the Desert

You have to cross a large desert that is 1,000 km long. You have a horse and 3,000 apples. The horse can carry a maximum of 1,000 apples at any time. For every kilometer that the horse needs to travel, it eats one apple before it can start moving. What is the maximum number of uneaten apples that the horse can transport to the other end of the desert? Please provide detailed explanations with your answer.



A good puzzle, it's a fair thing. Nobody is lying. It's very clear, and the problem depends just on you - Erno Rubik

Puzzle #13: The Game Show - Take Two

Your best friend is at a game show and he has just answered the final question to win the grand prize. For the prize he is shown two envelopes, each of which has some money inside (more than zero). The host informs him that one envelope contains twice the amount of money contained in the other envelope. He is asked to choose one of the envelopes. The envelope your friend chooses is opened and it contains a cheque for Rs. 1 crore (Rs. 10 million).

The host then tells your friend that he can choose to pay Rs. 5 lacs (Rs. 0.5 million) to get the option to exchange the envelope he picked with the unopened envelope. Your friend thinks that the other envelope will either have Rs. 2 crore (Rs. 20 million) or Rs. 50 lacs (Rs. 5 million) and he starts doing calculations on probability and expected values, but he is thoroughly confused. He uses the "Phone-a-friend" facility to call you up as you are the mathematics wizard. What should you advise your friend to do? Please provide complete explanation with your answer.



*Writing is mentally stimulating; it's like a puzzle that makes you think all the time -
Stephanie Zimbalist*

Puzzle #14: The Indistinguishable Tablets

Anand has a special medical condition for which he has been prescribed two very expensive medicines by his doctor. These medicines come in the form of tablets. Tablets of both the medicines look and feel identical and cannot be distinguished from each other. Anand needs to take exactly one tablet of each type every day.

One day, while Anand was taking his medicine out, two tablets of the second medicine popped out and got mixed with the one tablet of the first medicine he already had in his hand. Now there is no way to tell these three tablets apart. Can you find a solution where Anand can use these tablets without throwing them away?



People who work crossword puzzles know that if they stop making progress, they should put the puzzle down for a while - Marilyn vos Savant

Puzzle #15: The Wisest of Them All

Prime Minister of Einsteinia died in a tragic accident. The King of Einsteinia had to choose the new Prime Minister from the core council consisting of three extremely intelligent advisors. The King wanted to make the wisest of them the new Prime Minister. He devised a plan to test their intelligence. He put a sticker on the forehead of each of the three advisors. Each sticker was either black or white in colour. Each of the three advisors could see the colour of the stickers on the forehead of the other two but not his own forehead.

The king then told them that anyone who could see at least one white sticker should raise his hand. All three of them raised their hands. He then asked them to deduce the colour of the sticker on their own foreheads. The first one to do so correctly would be made the new Prime Minister. Anyone making an incorrect guess would be beheaded. After sometime, one of them said - "The colour of the sticker on my forehead is" What was the colour of the sticker on his forehead? Please provide detailed justification for your answer.



Nothing puzzles me more than time and space, and yet nothing puzzles me less, for I never think about them - Charles Lamb

Puzzle #16: Fifty Light Bulbs

The Prime Minister of Einsteinia lost the Mensa Annual Challenge and committed suicide. The King of Einsteinia had some doubts on the abilities of the Deputy Prime Minister so he devised a plan to test his intelligence before promoting him.

The King put 50 light bulbs in a room and put the corresponding 50 switches in another room. He switched on "x" number of these bulbs. He told the Deputy Prime Minister the number of bulbs (x) that were switched on and gave him the task of dividing the fifty switches into two groups such that each group had equal number of lit bulbs. The Deputy Prime Minister was allowed to go to the room with the bulbs or to the room with the switches but could not see one room from the other. By looking at the switch there is no way to tell whether the corresponding bulb is on or off. Flipping the switch each time toggles the state of the corresponding bulb.

Can you help the Deputy Prime Minister devise a strategy? Please provide detailed solution and justification for each step.



Puzzle #17: Floral Introductions

Professor Frankstein and his wife were invited to a ball in Newtonia to celebrate the discovery of a new metal. When they arrived there, they found six other couples. In Newtonia, there was a custom according to which people meeting each other for the first time exchanged a flower.

After all the people finished exchanging flowers, Prof. Frankstein decided to find out how many flowers each person had received and started interrogating everyone, his wife included. He got thirteen distinct replies. How many flowers did Mrs. Frankstein receive?



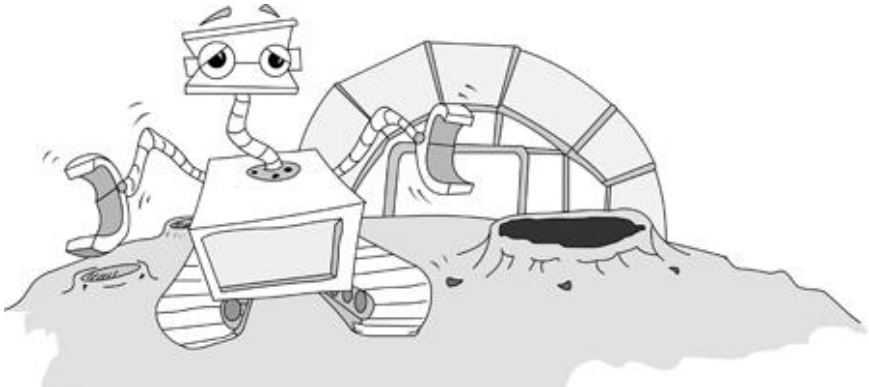
Puzzle #18: Robots at the Moon Base

You are the commander of the first manned base on the moon. You have a team of 5 scientists and 15 multipurpose robots. One day your whole team is busy preparing for the fast approaching sun-storm and you need to wisely allocate resources for the hundreds of the tasks that need to be completed. Otherwise, the very survival of the moon base will be in danger.

One of the tasks involves bringing back the precious equipment from a monitoring station in a crater that is 10 kilometers away. It is too dangerous for human scientists to venture out and this task will need to be performed by one of the robots. Unfortunately, each fully charged robot has enough energy only to go to the monitoring station but not for coming back. How will you accomplish this task using the minimum number of robots?

Notes:

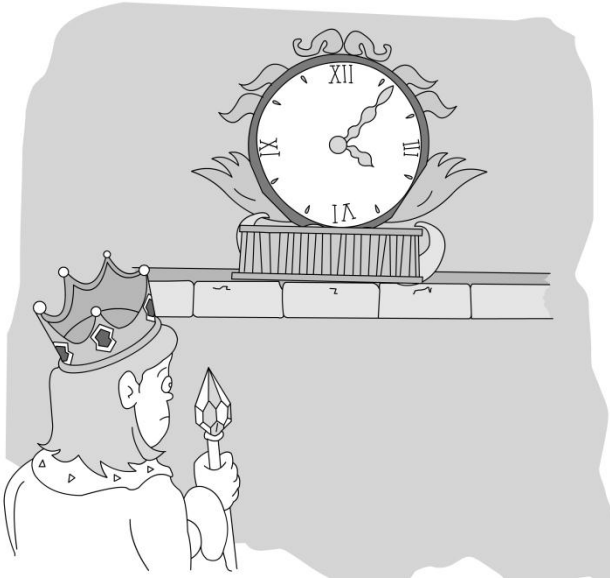
1. All the robots are same in every respect.
2. Each robot can instantaneously transfer any part of its energy to another robot when they are in physical contact with each other.
3. All the robots used in performing this task should safely return to the base immediately after completing the task.
4. The robots consume energy only when they are moving.
5. The moon base station has enough energy to charge the robots as and when required.
6. Robots can be remotely controlled from the base station.



Puzzle #19: Queen in a Quandary

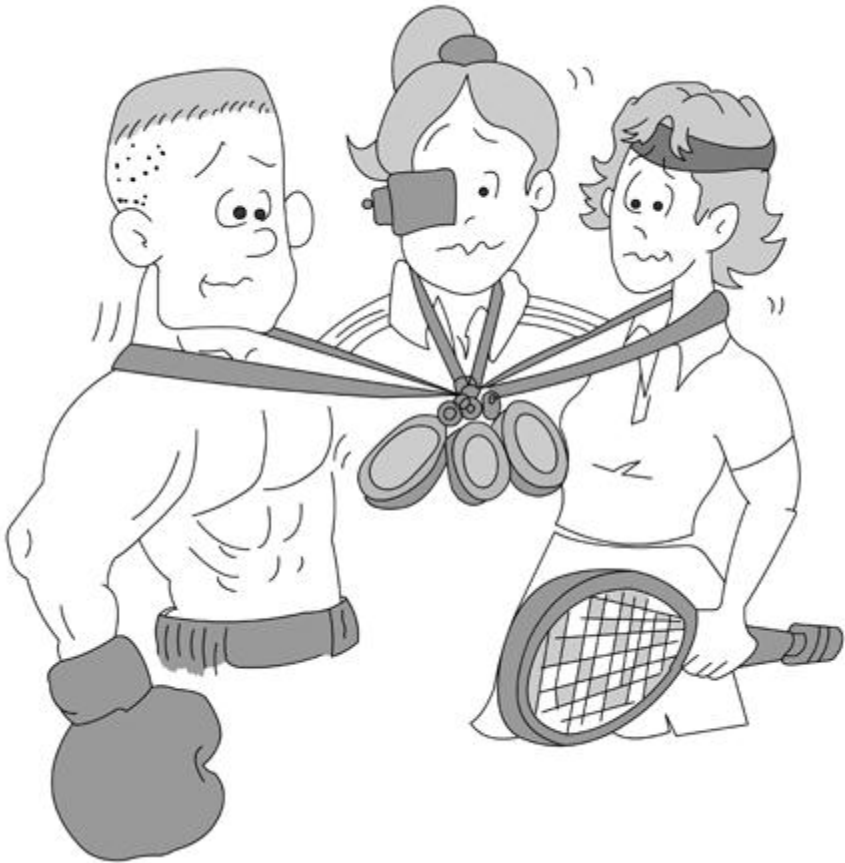
Queen Georgia was very attached to the clock that was gifted to her by her late father, King Eli. It was a precious heirloom that had been passed down from generation to generation. She never allowed anyone to touch that clock and even wound it herself. In fact, no other device for measuring time was permitted in her castle. One day she forgot to wind her clock before going to sleep. When she awoke, the clock had stopped. There was no way to reset it to the correct time. Then she remembered that an aunt of hers, who had a clock, stayed in a mansion several miles away.

The clock couldn't be moved as it was attached to the wall. So, Queen Georgia thought about it and then sent her messenger to her aunt's house with some instructions. The messenger ran to the aunt's house at a constant speed, rested there for some time and then came running back at the same speed. When the messenger came back, Queen Georgia reset her clock to the exact time. How did she do it?



Puzzle #20: Olympics Results

Last Saturday, two popular newspapers, RNA and Mid-Night, carried a story about three Indian medal winners: Viren (Boxing), Anindra (Shooting) and Sanaa (Tennis). Between them, they had earned India one Gold, one Silver and one Bronze medal. Mid-night published that Viren won the Gold medal while Anindra won the Silver medal. RNA published that Sanaa won the gold medal while Viren won the Silver Medal. In fact, the newspapers had goofed up - both had reported only one medal winner correctly. Can you tell who had won which medal?



Puzzle #21: The Fake Diamond

King of Einsteinia wanted to marry off his daughter. Many suitors wanted to marry the princess. So, the king devised a competition to find the most worthy of them all. He put 27 identical looking diamonds in a box. He then announced that one of the 27 diamonds was a fake. The fake diamond was identical to the other diamonds in all respects except that it had a slightly different weight. The challenge was to find the fake diamond using only a simple pan balance. What is the minimum number of weighings required to find the fake? Provide a detailed explanation with your answer.



Puzzle #22: The Fake Diamonds - Take Two

King of Einsteinia wanted to marry off his daughter and he devised the 27 diamond challenge to find the most worthy suitor for his daughter. Out of the hundreds of suitors for the princess ten got the correct answer. To find the smartest of the shortlisted suitors, the king devised another challenge.

He got three real diamonds of the same shape, size and weight - one each of blue, pink and white colour. Then he got three fake diamonds of the same colours and mixed them up with the real diamonds. You could not tell the real diamonds from the fake ones by looking at them. All three fake diamonds are of the same weight but a bit lighter than the real diamonds. The new challenge was to separate the real and fake diamonds into two piles using only a simple pan balance. What is the minimum number of weighings required to separate the diamonds? Provide a detailed explanation with your answer.

Puzzle #23: The Fake Diamonds - Take Three

The King of Einsteinia is at his wit's end. He is unable to choose a groom from the bevy of suitors for his daughter. The previous challenge he devised to find the future king resulted in a tie. He devises another challenge that he hopes will finally identify the most intelligent of them all.

He puts together 12 identical looking diamonds out of which one is a fake. The only difference between the fake and the real diamonds is that the fake diamond's weight is a little different from the rest. What is the minimum number of weighings required to identify the fake diamond using a simple pan balance? Provide a detailed explanation with your answer.

Puzzle #24: Boiling an Egg

You have a piece of string which when set on fire from one end takes 120 minutes to burn completely. It has a property that the time taken to burn a distance “D” from one end is the same as the time taken to burn a distance “D” from the other end. The rate of burning is not uniform – different parts of the string will take different amounts of time to burn.

You need to boil an egg for exactly 15 minutes using the string as a timer. How will you do it?



Puzzle #25: Gabbar Singh Ke Sholay

You are trekking in the hills of Chambal when you are caught by Gabbar Singh. He takes out his special gun with 12 chambers for bullets. He opens the barrel and shows you that all the twelve chambers are empty. He then takes three bullets and puts them in the gun touching each other. He then took another three bullets and placed them in the gun touching each other but on opposite side of the first three bullets. He closes the gun and spins the barrel.

Now the gun has six chambers with bullets and six empty chambers. He puts the gun to your head and pulls the trigger - the chamber is empty! Gabbar Singh laughs maniacally and says – “Kamal ho gaya, tu to bachh gaya (miracle happened, you survived). I will pull the trigger once more – if you survive again I will let you go. Do you want me to spin the barrel before I pull the trigger again?” Will you ask Gabbar to spin the barrel before he pulls the trigger again? Provide a detailed explanation.



Puzzle #26: Prachi and Her Flights

Prachi is an actress who has to travel abroad for her shoots, giving her the opportunity to extend her social circle to all parts of the world. In November, she flew to different destinations and flew a different airline every single time. She always made it a point to speak to the person sitting beside her. Also, the person sitting next to her was always from a profession different from those she had met on other flights. She flew Caesar Airlines, Einstein Airlines, Mussolini Airlines, Stratus Airlines and Trump Airlines to Athens, Berlin, NYC, Rome and Toronto and met an Actress, a Choreographer, a Fashion Designer, a Realtor and a Wrestler, not necessarily in that order.

Here's the catch. Given below are some clues about her travel.

1. She flew every Friday in November (starting on Nov 2nd).
2. Prachi flew Trump Airlines, sat beside the Fashion Designer and took a flight to Athens in three consecutive flights in the order prescribed above.
3. She flew Caesar Airlines earlier in the month than she flew to Berlin which in turn was some time earlier than when she gossiped with another actress on board their flight.
4. Prachi met the choreographer on a flight that was some time before the flight that she took to Rome.
5. She did NOT meet the Realtor on the flight to Toronto.
6. She neither flew Einstein Airlines to Rome nor did she fly Trump Airlines when she sat beside the choreographer.
7. She flew Stratus Airlines exactly two weeks before the flight on which she met the wrestler.
8. She spoke to the actress on a flight that she had NOT taken to Athens.

Can you deduce the dates when she flew, the airline she flew, the destinations she traveled to and the profession of the person sitting beside her?

Puzzle #27: Sally's Dice

Sally had three dice with a unique alphabet printed on each face instead of numbers. All 18 alphabets on the dice were distinct. She threw the dice together a few times and on rearranging the letters that appeared on the upper surfaces, she formed the following words:

RID, BOY, ZIP, HEP, DIN, TRY, YES, COT, MIC, LET, DOT, BUN, PAN

Using this information, deduce the letters on each Die.



Puzzle #28: Dividing the Inheritance

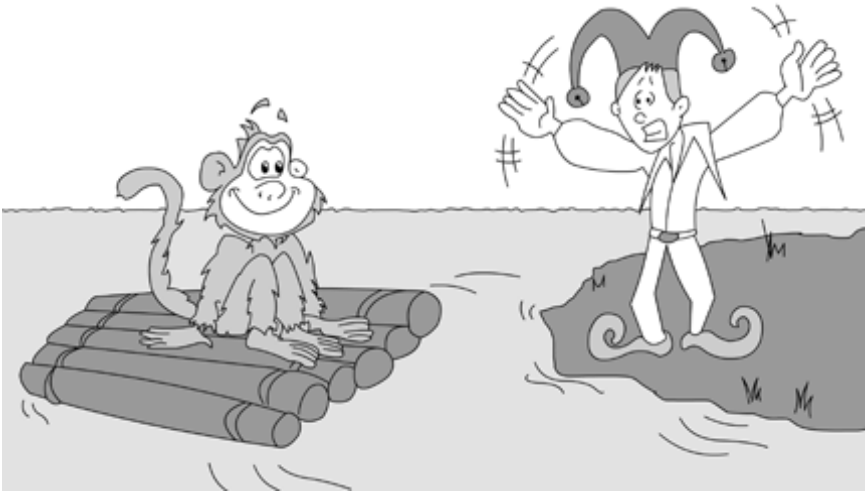
Your far off uncle has left behind a large rectangular plot of land that has to be divided equally between you and your cousin. Your uncle loved puzzles and decided to make you solve one last one. In his will he instructed that you and your cousin need to divide the plot evenly using only one linear partition.

The catch is that a rectangular section of the plot is barren. The barren land also must be shared equally between you and your cousin. If you are not able to divide the plot equally, the land will be donated to the government and you two will be left with nothing. How will you divide the land? Provide a detailed explanation with your answer.



Puzzle #29: The Voyage of the Monkeys

The new king of Einsteinia was a cruel man who hated 'Performing Arts' and hence started committing atrocities against performers especially those who performed with animals. One night, four jugglers, each one along with his monkey, attempted to cross a river and flee to Newtonia. It was safe not to swim across the river. All they had was a small raft that could accommodate a maximum of three living creatures at any given time. A monkey should not be present with other masters if its own master is not present, as in such a case the monkey creates huge noise which should be avoided. All the humans and only one monkey know how to raft. Devise a plan to help them flee Einsteinia safely in the least number of trips. Provide a detailed explanation for your answer.



Puzzle #30: The Voyage of the Monkeys - Take Two

The four jugglers were successful in fleeing to Newtonia along with their monkeys (The Voyage of the Monkeys). However, the king of Einsteinia conquered the kingdom of Newtonia and started committing the same kind of atrocities on his new subjects. The jugglers thought of fleeing to Edisonia in order to save the lives of themselves and their monkeys. En route, they met another juggler with his monkey who wanted to flee along with them. The jugglers agreed to take the new juggler with them.

The only way to escape to Edisonia was to cross the same river they crossed earlier. Also they had to use the same kind of raft. So the raft could accommodate a maximum of three living creatures at a time. Also a monkey should not be present with other masters if its own master is not present, as in such a case the monkey creates huge noise. All the five jugglers and only one monkey knew how to raft.

Devise a method to transport all of them across to Edisonia in the least possible trips. Provide a detailed solution for your answer.

ANSWERS

Puzzle #01: The Gold Chain

The man needs to make only one cut - on the third link. So he ends up with three pieces: 1 link (the one that was cut), 2 links joined together and 4 links joined together.

Day 1: give the single cut link

Day 2: give the piece with 2 links and take back the single link

Day 3: give the single link

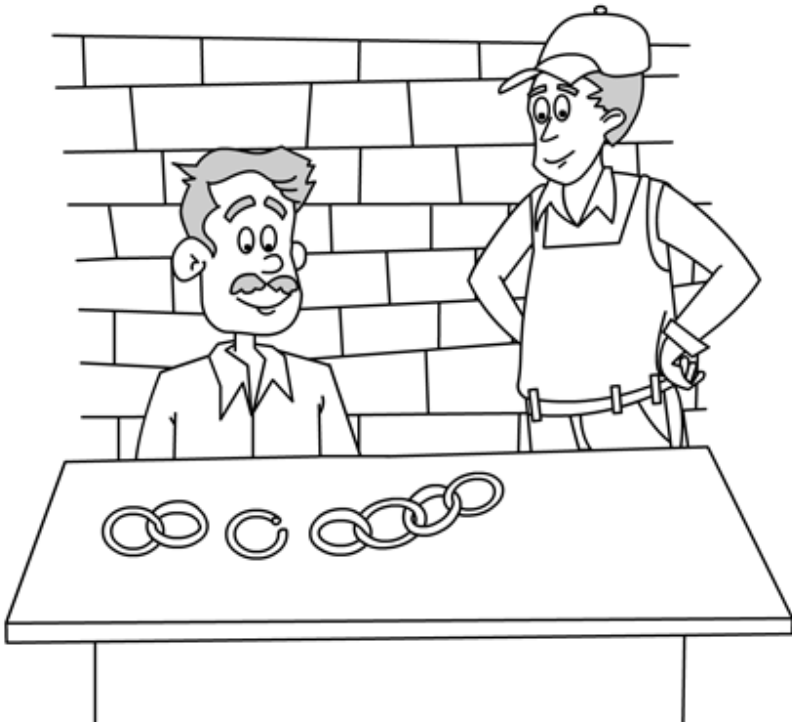
Day 4: give the piece with 4 links and take back the pieces with 1 and 2 links

Day 5: give the single link

Day 6: give the piece with 2 links and take back the single link

Day 7: give the single link

[Discuss](#) the solution with TestFunda users.



Puzzle #02: Two Horses in a Race

The sage told them to switch horses and whoever finishes first wins the throne (since they swapped their horses, the person whose horse would have reached the finish line last would be the winner!).

[Discuss](#) the solution with TestFunda users.

Puzzle #03: Two Jars with Marbles

Birbal leaves one white marble in the first jar and transfers the rest to the second jar. The probability of drawing a white marble from the first jar is 1 (100%). The probability of drawing a white marble from the second jar is $49/99$.

Given that either of the two jars is equally likely to be picked up, the combined probability is $(0.5 \times 1) + (0.5 \times 49/99) = 74/99$. That's a 74.75% chance of drawing a white marble.

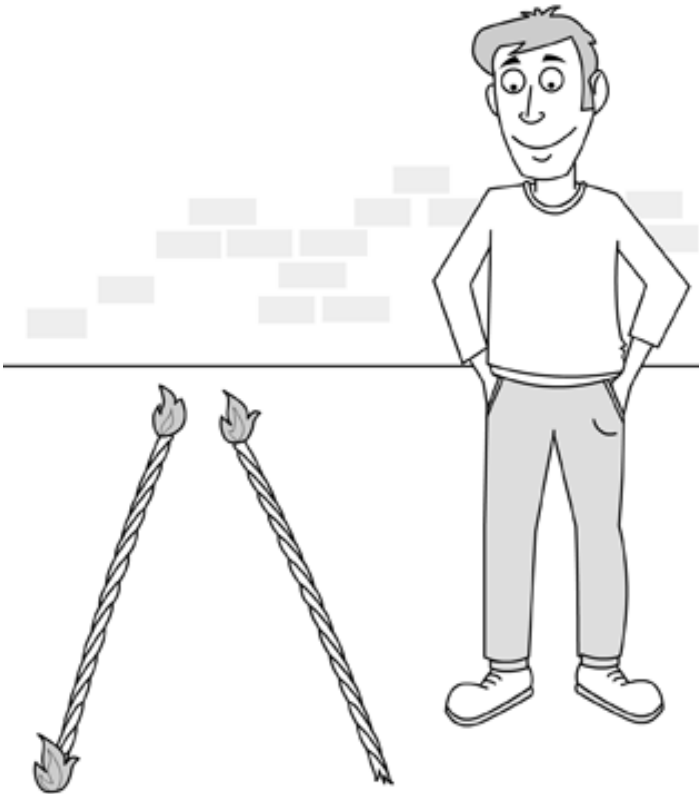
[Discuss](#) the solution with TestFunda users.

Puzzle #04: Timing with Ropes

Puzzle Solution:

Set fire to both ends of one rope. At the same time, set fire to one end of the other rope. The rope lit from both ends will take one hour to burn completely (it is burning at twice the rate). Just as it finishes burning, the other rope would have burned for one hour with one hour remaining. Now light this rope from the other end as well, so that the remaining part burns in 30 minutes.

[Discuss](#) the solution with TestFunda users.



Puzzle #05: Three Scientists with Hats

The colour was white!

If the last scientist saw two black hats ahead of him, he would know that his hat had to be white. If he kept quiet for a fixed time, it would indicate to the scientists ahead of him that at least one of the other two had a white hat.

Now the second scientist would know that there was at least one white hat between him and the first scientist. If the first one has a black hat, then he himself should have a white hat. But he kept quiet. So, the first scientist knew that he had a white hat.

Using the strategy explained above, at least one of the scientists will always be able to correctly predict the colour of the hat on his head (whatever be the distribution of hats!)

[Discuss](#) the solution with TestFunda users.

Puzzle #06: The Game Show with the Goats

Most people (including many mathematics professors at Ivy League colleges) get this one wrong. The instinctive reaction is to not switch, as it will not change the probability of winning - that answer is wrong!

One possible way to explain it is to answer the following questions:

Q: When you first pick a door, are you more likely to pick the car or the goat?

A: The goat. The probability of picking the goat is $2/3$.

Q: What is the probability of picking the car?

A: $1/3$.

Q: So, is the car more likely to be behind your first choice door or one of the others?

A: One of the others. That probability is $2/3$.

Q: If I now eliminate one of the other two doors and give you the option of changing, what should you do?

A: You should switch, as the probability of the car being behind the remaining door is $2/3$.

[Discuss](#) the solution with TestFunda users.

Puzzle #07: The Rope Trick

He can steal all the rope! And there are two different ways of doing it!!!

Solution 1:

He climbs up one rope, cuts the second one right at the top near the hook, and drops it down. He then climbs down and ties one end of the cut rope to the still hanging rope. He then carries the free end of the cut rope in his hand and climbs back up the first rope.

At the top, he loops the free end he is holding through the other hook (like in threading a needle!). So, now he has the free end of the rope hanging through the second hook. He keeps pushing the rope through the second hook till the knot he tied reaches the top, near the second hook. Now he has a looped rope (with two sides) hanging from the second hook. He shifts from the first rope to the looped rope, holding both sides of the loop (so that he does not slide down!). He then cuts the first rope from the top near the hook and lets it drop to the floor.

So, he has a 200 metre rope looped through the hook such that both the ends reach the floor. He climbs down holding both the sides of the looped rope and once at the bottom, he pulls down the looped rope!

Solution 2:

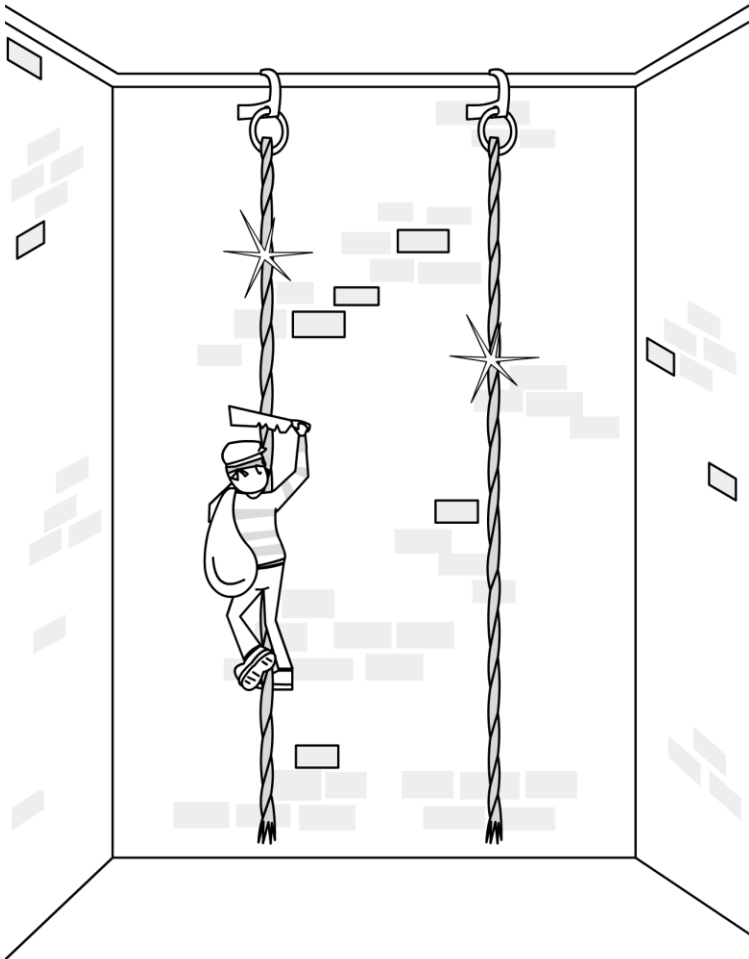
This trick is used by the rock climbers and mountaineers! The trick is to use a special knot that can be un-tied by pulling on one end of the knot. Pulling on the other end, make the knot tighter. [Read More.](#)

The thief climbs up one rope, cuts the second one right at the top near the hook, without dropping it down. He then ties the end of the rope he cut to the hook with the special type of knot. One end of this knot can be pulled without loosening the knot (end A). Pulling on the other end of the knot (end B) will un-tie the knot. He ties the knot so that end A is the longer end, almost reaching the ground, while the end B is only

about a couple of metres long. He then shifts to the long end (end A) of the rope he just tied.

He then cuts the first rope at the top without dropping it down. He then ties the cut end securely to the end B (the short end) of the rope. He climbs down (still holding onto end A) and jumps off the rope about 2-3 metres from the ground. He then pulls the rope tied to end B so that the knot comes loose. He then pulls the whole rope down!

Discuss the solution with TestFunda users.



Puzzle #08: Dragon and the Poisoned Wells

The knight got a glass of plain water to the duel. He himself drank from well number 1 before coming to the duel.

The dragon brought poisoned water from the well number 7 to the duel.

At the duel, the knight drank from the poisoned water from well 7 (that the dragon had got) and that neutralized the poisoned water he had drunk from well 1 before the duel.

The dragon drank the plain un-poisoned water from the glass and then rushed to the well number 7, drank from it and died. He wrongly assumed that the knight brought poisoned water from one of the lower-numbered wells and that the water from well number 7 will neutralize it.

[Discuss](#) the solution with TestFunda users.

Puzzle #09: Never ask a Woman her Age

Solution 1: They divide the women into two groups of 3 each. Each woman in the first group adds 1 (or some other common number) to her age and each woman in the second group subtracts 1 from her age. Each of them secretly writes down this number (after adding or subtracting 1 from the age) on a piece of paper, folds it and then drops it in a bowl. All the papers are opened and average of the numbers on them taken. This average is the average age of the women.

Solution 2: The census officer whispers a random number in the ear of one of the women. She adds her age to that number and whispers the sum in the ear of the second woman. The second woman adds her age to this number and whispers the sum in the ear of the third woman. And so on. The sixth woman tells the final sum to the census officer. He subtracts the original random number from this sum and divides the difference by 6 to obtain the average age.

[Discuss](#) the solution with TestFunda users.

Puzzle #10: Secret Documents

The businessman puts the documents in the case, locks it and sends the case to his associate. He keeps the key to the lock with himself. The business associate, when she receives the case, puts her own lock on the case (in addition to the lock already on it) and sends it back. She also keeps the key to her own lock with herself. When the businessman gets the case, he removes his own lock and sends the case back. Once the associate receives the case again, she can unlock it with her key and retrieve the documents.

[Discuss](#) the solution with TestFunda users.

Puzzle #11: Ancient Treasure

Let us look at the inscription on the gold door. It can either be correct or be wrong.

Case 1: The inscription is true. Then the inscription on the gold door has to be true. That means that the inscription on the silver door is untrue - silver room contains the treasure!

Case 2: The inscription is false. Then either both the inscriptions are false or both are true. Both cannot be true as that is inconsistent. That means that both inscriptions are false. Again, the treasure is in the silver room.

[Discuss](#) the solution with TestFunda users.

Puzzle #12: Crossing the Desert

Divide the journey into three legs:

Leg 1: ending at point A, which is 200 km from the starting point.

Leg 2: ending at point B, which is 333 km further away from point A.

Leg 3: of 467 km ending at the other end of the desert.

Leg 1: Start with transporting 1000 apples to Point A. The horse will consume 200 apples on the way to point A. Deposit 600 apples at point A and return with the remaining 200 apples to the origin. After the 3rd trip you will end up with $600+600+800 = 2000$ apples at point A.

Leg 2: Now start transporting 1000 apples from point A to point B. Horse will consume 333 apples on the way, deposit 334 apples at point B and return to A for another trip. After two trips you will end up with $334+667 = 1001$ apples at point B.

Leg 3: Load the horse with 1000 apples; give it 1 apple at the start of this leg. The horse will consume 467 apples on the way to the other end of the desert. You will end up with $1001-467 = 534$ apples at the other end of the desert.

[Discuss](#) the solution with TestFunda users.

Puzzle #13: The Game Show - Take Two

Let us assume that the first envelope contains "m" amount of money. Most people will think that there is an equal chance that the other envelope will contain either $2m$ or $m/2$ amount of money. So, the expected value is $(50\% \times 2m) + (50\% \times m/2) = 1.25m$. So they will think that it is better to switch the envelope. Wait! If after switching to the second envelope you are given the same option, then again the expected value of money in first envelope is 1.25 times the amount of money in the second envelope!

There is a fallacy in the above assumptions. While there are only two envelopes - one with m and the other with $2m$, your calculations are assuming three envelopes - with m , $2m$ and $m/2$ amount of money! The problem becomes clear if you start thinking in terms of only m and $2m$. So, let us say that the two envelopes contain "m" and "2m" amount of money. There is an equal chance of your friend picking up either of the envelopes.

Case 1: He picked up the envelope with "m". Then the gain from switching is $\text{New Amount} - \text{Initial Amount} = 2m - m$

Case 2: He picked up the envelope with "2m". Then the gain from switching is $\text{New Amount} - \text{Initial Amount} = m - 2m$

Since both are equally likely, the expected gain is $50\% * (m - 2m) + 50\% * (2m - m) = 0$. So he should stick to the envelope he chose in the first attempt.

We know that this problem will lead to a lot of debate. For further reading, we suggest the following articles:

www.philosophyetc.net

www.maa.org

[Wikipedia](#)

[Discuss](#) the solution with TestFunda users.

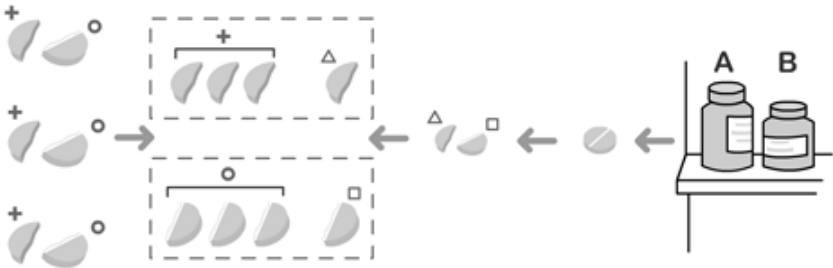
Puzzle #14: The Indistinguishable Tablets

Let us call the two medicines A and B.

Anand divides the three mixed-up tablets into two piles in the following manner. He picks up each of the three tablets one by one and cuts them into two equal pieces. He puts each of the two cut pieces into two separate piles. After cutting all the three tablets, he has two piles with three halves each. Each pile contains 0.5 tablet of medicine A and 1.0 tablet of medicine B.

He then takes a new tablet of medicine A and cuts it into two equal pieces. He puts one piece in each of the two piles. Now he has two piles - each with 4 halves totalling up to 1.0 tablet of each of the medicines. He eats one pile today and saves the second pile for tomorrow.

[Discuss](#) the solution with TestFunda users.



Puzzle #15: The Wisest of Them All

The colour of the sticker was white. There are four cases:

Case A: All of them had black stickers.

Case B: Two of them had a black sticker and one had a white sticker.

Case C: Two of them had a white sticker and one had a black sticker.

Case D: All of them had white stickers.

Cases A and B are ruled out as all three of them raised their hands - so all of them could see at least one white sticker. So we are left with cases C and D.

Case C: The two advisors with white stickers will think this way - the other advisor with the white sticker has also raised his hand - so he can see a white sticker. Since the third advisor has a black sticker, I must be the one with the white sticker. So, the wiser of these two will be able to reason it first and then say the colour of his sticker.

Case D: Each of them can see two white stickers. Each one will think that either I have a white (case D) or a black sticker (case C). If after a few moments none of them said the colour then the wisest of them will realize that, his sticker colour cannot be black. The reasoning is that if his colour was black then it has to be case C. In case C one of the other two can easily guess his colour according to the logic of case C presented above. So, he will know that it is case D and his colour is white.

There is another interesting interpretation of the problem. The King should be wise and fair and give an equal chance to all three. So, in the above scenarios, only case which is fair to each one is case D - when all three of them had a white sticker! So, again the colour is white.

[Discuss](#) the solution with TestFunda users.

Puzzle #16: Fifty Light Bulbs

The Deputy Prime Minister selected the first "x" switches from the 50 switches (he knows "x" is the number of lit bulbs). Let us assume that "n" switches out of these are in on position. So the other group has $(x - n)$ switches in on position. Total number of lit bulbs is $n + (x - n) = x$.

Now the Deputy Prime Minister flips all the x switches in the group of switches he selected. So the number of switches in on position changes from "n" to $(x - n)$. The other group already has $(x - n)$ switches in on position. So, now both the groups have equal number of lit bulbs.

[Discuss](#) the solution with TestFunda users.

Puzzle #17: Floral Introductions

Since there are 7 couples in all – there are 14 persons at the ball. Let us call these couples: (1A/1B), (2A/2B), (3A/3B), (4A/4B), (5A/5B), (6A/6B) and (7A/7B).

No one gave himself or herself a flower, or exchanged one with his or her partner. So, the maximum number of flowers one could get was $14 - 2 = 12$. Since there are thirteen distinct numbers of flowers, these numbers must be 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12.

The person who exchanged 12 flowers (say person 1A), exchanged flowers with all other persons excluding him/herself and his/her spouse. So, all other persons (apart from this person and his/her partner) got at least one flower each. Since there are only 12 other persons apart from him/herself and his/her spouse, the other 12 persons would have got at least 1 flower. So, only the number '0' is left which is the number of flowers his/her spouse got. Therefore, the partner of the person who exchanged 12 flowers must be the person who exchanged '0' flowers (person 1B).

Now we can extend this logic to other couples. The person who exchanged 11 flowers (say person 2A), exchanged flowers with all other persons apart from 1B (0 flowers) and own spouse - 2B. So, these 11 persons would all have got one flower from 2A and one from 1A – at least 2 flowers. So these 11 people got at least 2 flowers. The only number left is 1. Therefore, the partner of the person who exchanged 11 flowers (2B) must be the person who exchanged 1 flower.

Similarly,

The partner of the person who exchanged 10 flowers is the person who got 2 flowers.

The partner of the person who exchanged 9 flowers must be the person who got 3 flowers.

The partner of the person who exchanged 8 flowers must be the person who got 4 flowers.

The partner of the person who exchanged 7 flowers must be the person who exchanged 5 flowers.

The partner of the person who exchanged 6 flowers must be the person who exchanged 6 flowers.

Therefore, the numbers of flowers exchanged by the persons at the ball are: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 6. The only number repeated is 6. So, Prof. Frankstein must be the person with 6 flowers. So, his spouse should have got 6 flowers.

[Discuss](#) the solution with TestFunda users.

Puzzle #18: Robots at the Moon Base

You need three robots to complete the task.

First send three fully charged robots (call them A, B and C) to a point $\frac{1}{3}$ rd of the distance to the monitoring station (say point X). All three will consume $\frac{1}{3}$ rd of their energy on the way to this point. At 'X' A will transfer $\frac{1}{3}$ rd of its energy to C and return to base. B and wait at point X and C will travel another $\frac{1}{3}$ rd of the distance to point Y (point Y is $\frac{2}{3}$ rd of the distance from the base station to the monitoring station). Now, B and C both have $\frac{2}{3}$ rd of the energy left.

A will charge itself at the base station and travel to point X where it will transfer $\frac{1}{3}$ rd of its energy to B and then it will return to the base to recharge itself. B will travel to point Y and transfer $\frac{1}{3}$ rd of its energy to C and then B will return to the base. C will be fully charged and will travel to the monitoring station pick up the equipment and travel back to point X.

Robot A will again travel to point X and meet Robot C there. A will transfer $\frac{1}{3}$ rd of the energy to C and both will return safely to the base station.

[Discuss](#) the solution with TestFunda users.

Puzzle #19: Queen in a Quandary

Queen Georgia set her clock to 12:00 when the messenger left for her aunt's house. When the messenger arrived at her aunt's house, he noted the exact time and then rested. He left the aunt's house exactly 2 hours later. He traveled at the same speed in both the directions. This way, when he arrived back, the total elapsed time was 2 hours plus twice the travel time (say t).

So, when the messenger came back, Queen Georgia's clock read (12:00 + 2:00 + $2t$). So, she can immediately calculate the value of " t " by seeing the time of arrival of the messenger. The messenger had noted the exact time in the aunt's clock (say " T ") just before he left for the journey back. It took him " t " time to travel back. So, the correct time when the messenger came back was ($T + t$). So, Queen Georgia knew the correct time as both of these are known quantities.

[Discuss](#) the solution with TestFunda users.

Puzzle #20: Olympics Results

Each newspaper had published one incorrect statement.

According to Mid-night, the combination was: Viren - Gold and Anindra - Silver. Since only one statement is true, the correct combination could be:

- a. Viren - Gold; Sanaa - Silver; Anindra - Bronze OR
- b. Sanaa - Gold; Anindra - Silver; Viren - Bronze

According to RNA, the combination was: Sanaa - Gold and Viren - Silver. Since only one statement is true, the correct combination could be:

- a. Sanaa - Gold; Anindra - Silver; Viren - Bronze OR
- b. Anindra - Gold; Viren - Silver; Sanaa - Bronze

The common combination between the two newspapers is: Sanaa - Gold; Anindra - Silver; Viren – Bronze. So, that is the correct combination.

[Discuss](#) the solution with TestFunda users.

Puzzle #21: The Fake Diamond

You need to use the pan balance a minimum of four times in order to identify the fake one. Separate the diamonds into three stacks of nine diamonds each. Let's call them A, B and C. Weigh stack A against B and then A against C. One of the stacks will be of different weight - either lighter or heavier than the other two. You now know whether the fake diamond is heavier or lighter than the others.

Take the stack with the different weight and break it into three stacks of three diamonds each. Let's call these stacks D, E and F. Weigh stack D against E. If D and E are equal, then F is the odd stack. If D and E are not equal, the lighter or heavier (based on the A, B, C comparison) is the odd stack.

You now have three diamonds left. Let's call them G, H and I. Weigh G and H. If G equals H, then I is the odd and is lighter or heavier (based on the A, B, C comparison). If G and H are not equal, then the lighter or heavier (based on the A, B, C comparison) is the fake diamond.

[Discuss](#) the solution with TestFunda users.

Puzzle #22: The Fake Diamonds - Take Two

You need two weighings to separate the diamonds. Let us call the diamonds: (B1, B2); (P1, P2); (W1, W2). One in each set is fake and hence lighter than the other.

First weighing: Put B1 and P1 on one side and B2 and W1 on the other side.

Case 1: The two sides balance - so, each side of the balance has one fake and one real diamond. So, one of P1 or W1 is a fake. Weigh P1 against P2. If P1 is lighter then it means that P1 is a fake and W1 is real. So, the fake diamonds are P1, B2 and W2 and the other three are real.

If P2 is lighter then B1, W1 and P2 are fakes and the other three are real.

Case 2: The two sides don't balance. Let us say side containing B1 and P1 is heavier. Then B1 is definitely real. Following combinations are possible:

Real	Fake
B1	B2, P1, W1
B1, P1	B2, W1
B1, P1, W1	B2

Now weigh P1 against W2. If P1 is lighter then P1 is fake and W2 is real. Similarly, if P1 is heavier then it is real and W2 is fake. So we now know the authenticity of all the diamonds.

If P1 and W2 are same weight then it means that P1 and W1 are of different weights. That case is only possible if P1 is real and W1 is fake (see the table above). Hence, we again know the authenticity of all the diamonds.

[Discuss](#) the solution with TestFunda users.

Puzzle #23: The Fake Diamonds - Take Three

You can identify the fake diamond in three weighings.

Attach a unique number to each diamond viz. 1, 2,...12. Divide the diamonds into 3 groups: diamonds 1-2-3-4, diamonds 5-6-7-8 and diamonds 9-10-11-12. Now weigh diamonds 1-2-3-4 against diamonds 5-6-7-8.

Case 1: The two sets are equal; the fake diamond is in group 9-10-11-12. So when you weigh the second time, you weigh diamonds 9 and 10 against diamonds 1 and 2. (This is since you know that 1 and 2 weigh the same.) If both sides are balanced then one of 11 or 12 is a fake. For the third weighing, weigh diamond 11 against diamond 1. If both sides balance again, we know it's diamond 12. If, in that last weighing, it wasn't balanced then we know it's diamond 11.

If in the second weighing (9-10 against 1-2) the pans were not balanced then you weigh diamond 9 against diamond 1. If it's balanced, you know it's diamond 10, if it isn't, it's diamond 9.

Case 2: Now suppose when the diamonds were weighed for the first time, both sides weren't even. Let us say 1-2-3-4 went up and 5-6-7-8 went down – then 9-10-11-12 are real. For the second weighing weigh 1-2-3-8 against 4-9-10-11. There are three possibilities:

Case 2A: Side 1-2-3-8 went up. One of the diamonds 1,2,3 is a fake and is lighter than the others. Now weigh 1 against 2. If both are balanced then 3 is a fake else the diamond on the side that went up is a fake.

Case 2B: Side 1-2-3-8 went down. Diamond 8 is a fake and heavier or diamond 4 is a fake and lighter. Now weigh 8 against 1. If 8 goes down then it is a fake else 4 is a fake.

Case 2C: Both sides are balanced. One of the diamonds 5-6-7 is a fake and heavier than the others. Now weigh 5 against 6. If both are balanced then 7 is a fake else the diamond on the side that went down is a fake.

[Discuss](#) the solution with TestFunda users.

Puzzle #24: Boiling an Egg

Cut the string from the centre. Now you have two parts each of which will take 60 minutes to burn completely, if set on fire from one end. This is because the string is symmetrical around its centre as stated in the puzzle.

Now set fire to one of the pieces of the string from both ends and at the same time set fire to the other piece only from one end. The string that is burning from both ends will take 30 minutes to burn completely – it is burning at twice the rate.

At the end of 30 minutes set fire to the other end of the string that is burning only from one end and at the same time start boiling the egg. This piece of string had 30 minutes left to burn, but since now it is lit from both ends, it will take only 15 minutes to burn completely.

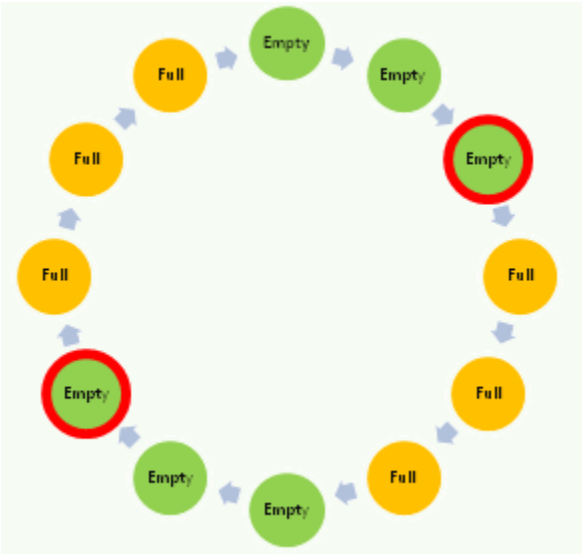
[Discuss](#) the solution with TestFunda users.

Puzzle #25: Gabbar Singh Ke Sholay

If you spin the barrel, then you will die if the barrel stops at one of the bullets - the probability of you dying is $6/12 = 1/2$.

If you don't spin the barrel then you will die only if the current chamber is the one just preceding a chamber with the bullet (see the image below). There are 2 empty chambers just preceding the bullets out of the six empty chambers. So, your chance of getting killed is $2/6 = 1/3$.

So you will prefer not to spin the barrel before the trigger is pulled again!



[Discuss](#) the solution with TestFunda users.

Puzzle #26: Prachi and Her Flights

Date	Airlines	City	Neighbor
Nov 2	Trump Airlines	NYC	Realtor
Nov 9	Stratus Airlines	Toronto	Fashion Designer
Nov 16	Caesar Airlines	Athens	Choreographer
Nov 23	Einstein Airlines	Berlin	Wrestler
Nov 30	Mussolini Airlines	Rome	Actress

The trip to Athens, the trip where Prachi sat next to the Actress, and the trip where Prachi sat next to the Wrestler were among the last three trips [Nov 16th, 23rd, and 30th], and the trip to Athens wasn't the one where she met the Actress [as per one of the given conditions] or the Wrestler [she flew Trump Airlines exactly two weeks before the one to Athens, and she flew Stratus Airlines exactly two weeks before she sat by the Wrestler] Thus, these three are separate flights, in some order.

She didn't sit by the Fashion Designer on the trip to Athens, so the flight where she sat by the Fashion Designer was on one of the first two flights [Nov 2nd and Nov 9th]. But it wasn't first [as Fashion Designer was in a week after the one in which Prachi traveled by Trump Airlines]. Therefore, Nov 2nd flight was the Trump Airlines flight, the one where she sat by the Fashion Designer was the Nov 9th flight, and the one to Athens was the Nov 16th flight. And she sat by the Actress and Wrestler on the Nov 23rd and Nov 30th flight, in some order.

She didn't sit beside the Choreographer on the Trump Airlines flight, so that wasn't Nov 2nd, she sat beside the Choreographer on Nov 16th

[the Athens flight] and it was the Nov 2nd flight where he sat next to the Realtor. Nov 2nd [first flight, Trump Airlines, Realtor] wasn't to Rome, Berlin, or Toronto, so that flight was to NYC.

The Nov 9th flight wasn't to Rome [as it has to be after the one with Choreographer which was Nov 16th] or to Berlin [after Caesar Airlines, which would have to be Nov 2nd, but Trump Airlines was Nov 2nd], thus, on Nov 9th she flew to Toronto. Berlin wasn't the last destination, so it was her destination on Nov 23rd and Rome was her destination on Nov 30th. Berlin [Nov 23rd] was before the one where she sat by the Actress, so she sat by the Actress on Nov 30th flight to Rome, and it was on the Nov 23rd flight to Berlin that she sat by the Wrestler. Since she sat by the Wrestler on the Nov 23rd flight, then she flew Stratus Airlines on the 9th [exactly two weeks before]. She flew Caesar Airlines before the flight when she flew to Berlin [Nov 23rd] so she flew Caesar Airlines on the 16th. She didn't fly Einstein Airlines to Rome [Nov 30th], thus, she flew Einstein Airlines to Berlin on the 23rd and her last flight that month was on Mussolini Airlines.

[Discuss](#) the solution with TestFunda users.

Puzzle #27: Sally's Dice

Die 1: R, N, Z, M, O, E

Die 2: I, A, T, B, H, S

Die 3: D, P, C, Y, U, L

Consider the word RID. Each of the letters R, I and D lie on different dice. Similarly, for the word DIN, each of the letters D, I and N lie on different dice. From this it can be deduced that R and N are on the same die.

From ZIP and PAN, we get that P and N and P and I cannot be on the same die. So, P and D are on the same die, A and I are on the same die and Z, R and N are on the same die.

From COT and DOT, C and D are on the same die.

Using TRY and DOT, T happens to be on the same die as I. Also, since the dice that has C and I are known, M is on the same die as R.

Also, since we know the positions of C and T, we can place O on the same die as R. As a result, using BOY, B is placed on the same die as I. And, knowing the positions of B and N, we can place U on the same die as D.

From LET and HEP, H and P cannot be on the same die, so L is on the same die as D, and E is on the same die as R.

The only alphabet that's left is S and that can be placed in the vacant slot on the same die as I.

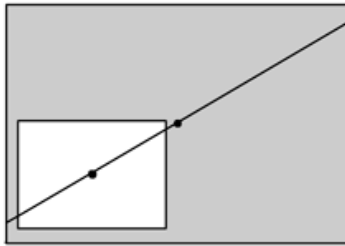
[Discuss](#) the solution with TestFunda users.

Puzzle #28: Dividing the Inheritance

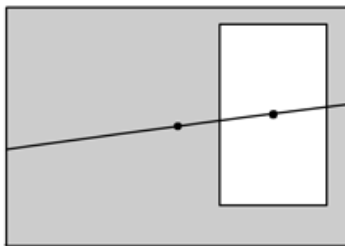
Join the centre of the main plot of land with the centre of the barren piece of land. Extrapolate the line on either side to the edge of the main plot. The plot will get divided equally into 2 equal parts irrespective of the position and orientation of the inner rectangle.

[Discuss](#) the solution with TestFunda users.

Example 1



Example 2



Puzzle #29: The Voyage of the Monkeys

Let the four humans be A, B, C and D and the four monkeys be a, b, c and d.

Let a be the monkey who can raft.

In order to cross the river safely, a, b and c cross the river first. Then, a comes back, takes d with it, deposits it on the other side and returns back.

Now, a stays behind, and B, C and D cross the river.

Now, we have A, a in Einsteinia and B, b, C, c, D and d in Newtonia.

D and d come back. And A, D and a go to Newtonia leaving d behind.

Later D comes back and takes with him safely to Newtonia.

Thus, in 9 trips, all of them safely cross the river.

[Discuss](#) the solution with TestFunda users.

Puzzle #30: The Voyage of the Monkeys - Take Two

Let the five jugglers be A, B, C, D, and E and the five monkeys be by a, b, c, d, and e. Let a be the monkey that knows how to raft.

a, b, and c cross the river first.

a comes back alone and takes d over to Edisonia.

a goes back and stays behind.

B, C, and D, now, cross the river. Now A, a, E, and e are in Newtonia while B, b, C, c, D, and d are in Edisonia.

D and d return to Newtonia.

Now, A and a raft to Edisonia.

C and c return to Newtonia.

C, D, and E, from Newtonia, cross over to Edisonia. Now monkeys c, d, and e are at Newtonia, and everyone else is at Edisonia.

a goes back to Newtonia.

It returns to Edisonia with c and d.

It then goes back to Newtonia and fetches e from there.

Thus, in 13 trips all of them safely cross over to Edisonia.

[Discuss](#) the solution with TestFunda users.

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