

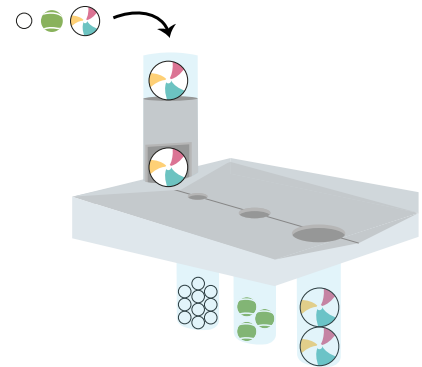
**Tasks T1 – T7 carry 3 points each**

**T1. Ball sorting machine**

At Beaver Playland, beavers use a sorting machine to organize their balls.

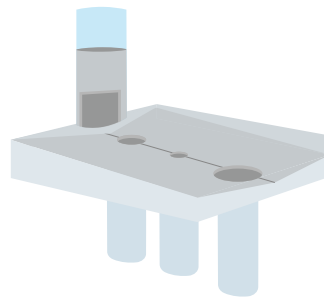
Balls enter one by one through a tube, roll down a slanted ramp. Balls roll past holes of increasing size. The first hole fits only golf balls (smallest), the second is the size of the tennis balls (medium), and the third is the size of the beach balls (largest).

Each ball falls into its cylinder before the next drops. If a cylinder fills, all balls are moved to another container.

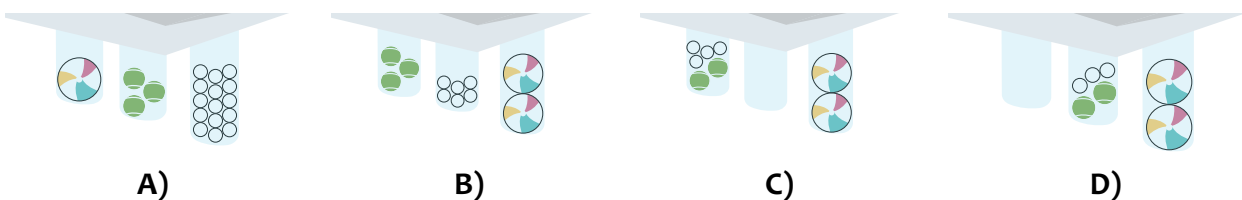


**Question / Challenge**

One machine is malfunctioning because its holes are in the wrong order: medium (tennis ball size) first, small (golf ball size) second, and big (beach ball size) third.



Can you identify which group of cylinders could be the end result of this malfunctioning sorting machine?



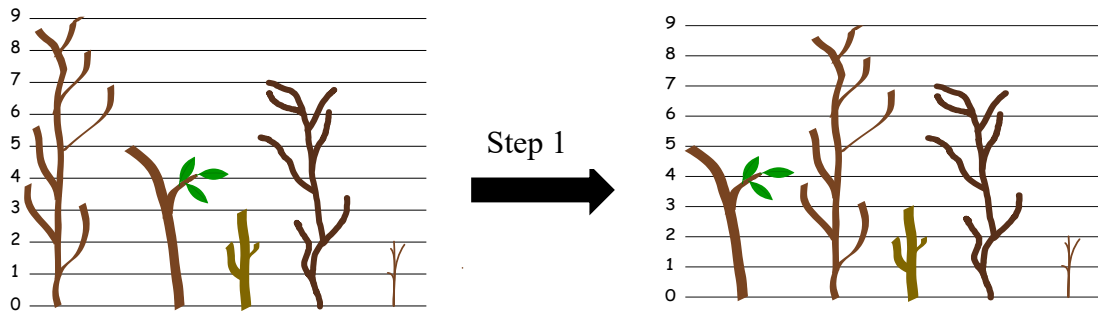
**T2. Sorting Twigs**

In Beaver village every beaver has his own task. The youngest beaver Jaka’s task is sorting twigs by length from shortest to longest. When he gets a heap of new twigs, he puts them in line and orders them by length.

When ordering the twigs he must follow a set of rules:

1. Always start from the leftmost twig.
2. Compare two twigs that are side by side. If the left twig is longer than the right twig, switch their positions; otherwise leave them as they are.
3. Continue moving to the right, comparing and swapping as needed. When you reach the end of the line, start again from the leftmost twig. Repeat this process until not any order of twigs is changed.

Jaka received five twigs of different length and puts them in line like this 9, 5, 3, 7, 2. In step 1, he compares twigs of length 9 and 5 and switches their position, because 5 is shorter than 9. Twigs are now ordered like this: 5, 9, 3, 7, 2.



In step 2, he compares second and third twig, and so on. Every comparison counts as one step.

**Question / Challenge**

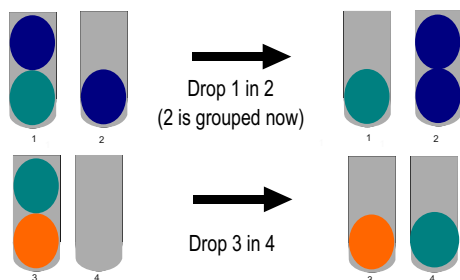
What order will the twigs be in after step 5?

- A) 3, 5, 7, 2, 9
- B) 5, 3, 7, 2, 9
- C) 3, 5, 2, 7, 9
- D) 2, 3, 5, 7, 9

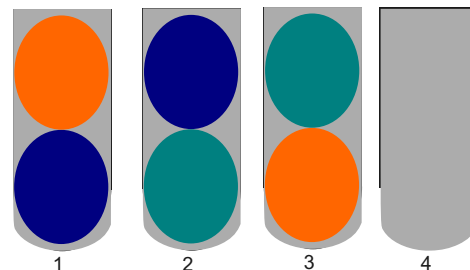
**T3. Gumball shop**

Bob has bought 4 containers of 2 gumballs each. He ate the two gumballs from the fourth container, and now it is empty. The first three containers remain intact. The gumballs come in 3 colors. Bob wants to group the gumballs by the same color. He can only use a move called **drop** to move the gumball at the top of the container to another container. Each container can only hold a maximum of two gumballs.

Here are two examples of a drop



Bob's gumballs that need to be grouped



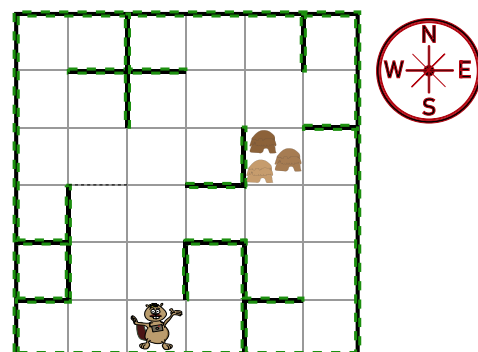
**Question / Challenge**

Which of the following moves combination is valid so that Bob can group the gumballs in the containers by the same color?

- A) Drop 1 in 4, Drop 3 in 1, Drop 3 in 4, Drop 2 in 3
- B) Drop 2 in 4, Drop 3 in 2, Drop 1 in 3, Drop 1 in 4
- C) Drop 3 in 4, Drop 2 in 4, Drop 1 in 3, Drop 1 in 2
- D) Drop 2 in 4, Drop 1 in 2, Drop 3 in 1, Drop 1 in 4?

**T4. Visit San Village**

Beaver Joel wants to visit a nearby village and needs directions. He sees a sign but cannot understand the symbol language. The indications can only be North, South, East and West and each symbol stands for moving one square in a specific direction. Thick lines along the way are walls that cannot be crossed!



**Question / Challenge**

Which instructions will lead Beaver Joel to the village?

A) ◎ ▲ ▲

B) ▲ □ ◎ ◎ ◎

C) ▲ ▲ ▲ ▲ ▲

D) ▲ ▲ ◎ ◎ ▲

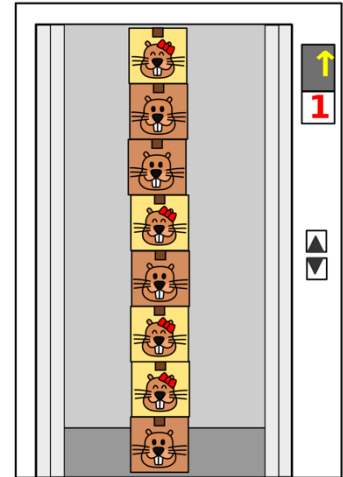
**T5. Elevator**

Bitaro () lives on the **2nd floor**, and Bibako () lives on the **3rd floor** of an apartment building.

The movers accidentally mixed up their boxes. They stacked **all the boxes in the elevator**, one on top of another. The elevator is now on the **1st floor** as shown in the image.

Each box has the owner's face on it. The elevator can move to any floor and stop there. Beavers can only pick up **their own boxes**, and **only from the top** of the stack. If the box on top belongs to the other beaver, the elevator must move to their floor first.

The elevator starts at the 1st floor.



**Question / Challenge**

How many times does the elevator stop at a floor to let Bitaro and Bibako take their boxes?



A) 2




B) 6

C) 8

D) 9

**T6. Turn It On**






Power Paul, the funny electrician, wired a ceiling light in a room with two switches that turn the light on or off. Each of the switches can be turned ON () or OFF (). He cleverly integrated a picture on the wall into the circuit:

- If the picture is upright () , the light is on only when exactly one of the two switches is ON.
- If the picture is tilted to the right () , the light is off only when both switches are OFF.
- If the picture is tilted to the left () , the light is on only when both switches are ON.

**Question / Challenge**

How can you turn off the light?



- A) Turn the picture upright () and turn the left switch OFF (.
- B) Only turn the picture upright (.
- C) Turn the picture to the left (.
- D) Only turn the right switch off (.

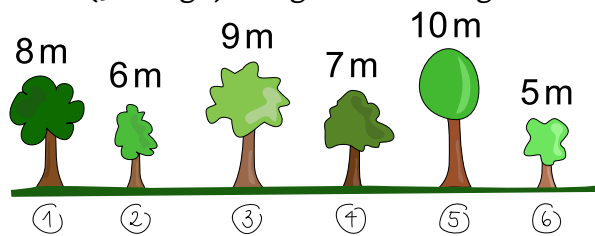
**T7. Building a dam**

The beavers need to cut some trees for a dam project. The trees are numbered from 1 to 6 and have different heights. They follow two simple rules for picking the next tree to cut:

Rule 1: The next tree must have a higher number than the previous one.

Rule 2: The next tree must be shorter than the previous one.

For example, if they decide to start cutting with tree number 2 (6 m high), they must continue with tree number 6 (5 m high) and get a total height of 11 m.



**Question / Challenge**




What is the maximum total height of the trees that the beavers can cut down?

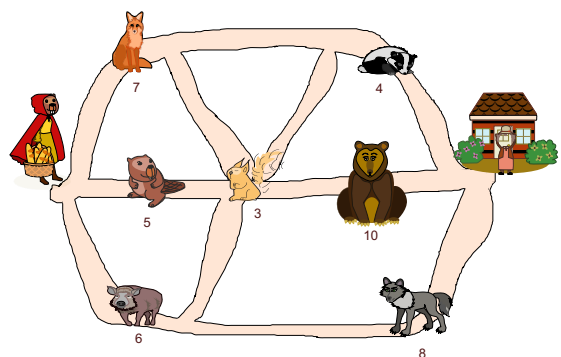
- A) 21
- B) 32
- C) 46
- D) 79

**Tasks T8 – T14 carry 4 points each**


**T8. Little Red Bebras Hood**

Little Red Bebras Hood has baked 40 buns. She wants to walk to her grandma’s house through the forest. There are different paths and she can turn from one path to another.

For example, after passing the fox  she can turn right and meet the squirrel , or go further and meet the badger . Note that the squirrel lives at the intersection of several paths and Little Red Bebras Hood will meet him when she passes the intersection in any direction.



The numbers show how many buns Little Red

Bebras Hood will give the animal to pass through safely. For example, the bear  gets 10 buns.

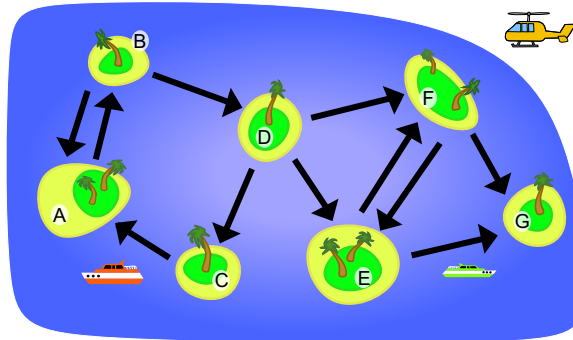
**Question / Challenge**

What is the largest number of buns she can bring her grandma safely?

- A) 21                      B) 23                      C) 28                      D) 29

**T9. Island research expeditions**

A research team needs to investigate all islands. They may use a helicopter to land on any island. There are also ferries traveling between the islands, but only in the directions shown on the map. When the team does a research trip, they land with their helicopter on any island, can take any number of ferries, and then must return to the helicopter.



**Question / Challenge**

What is the minimum number of research trips needed to visit every island?

- A) 3                      B) 6                      C) 5                      D) 2

**T10. Two friends**

Two little beavers Alice and Bob first met in 2020. This is all you know about their friendship.



Assume that today is November 15, 2025.

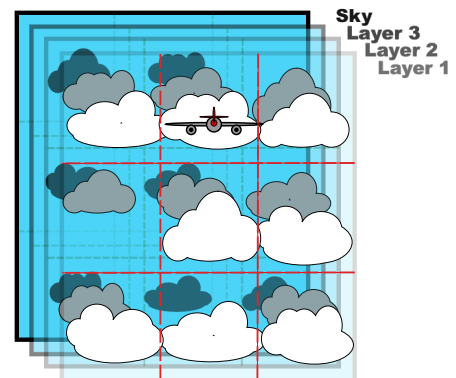
**Question / Challenge**

Can you tell for sure how long they have been friends?

- A) Yes, definitely more than 5 years.                      B) Yes, definitely less than 5 years.  
 C) Yes, exactly 5 years.                      D) No, it is impossible to tell exactly.

**T11. Avoiding the clouds**

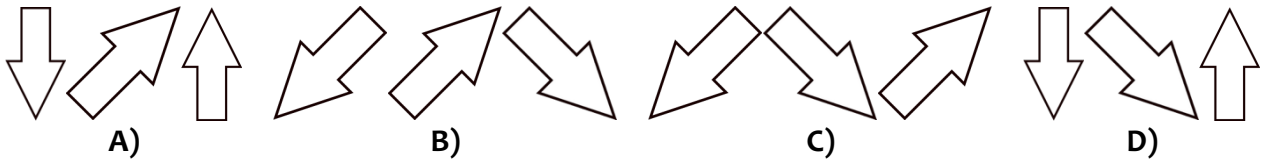
A pilot is about to encounter some clouds as they fly through a 3x3x3 grid. They want to avoid these clouds, flying through clear sky instead. Each time the pilot turns, the plane will fly up, down, left, right, or diagonally as it moves forward one step. The white clouds are nearest, the light grey clouds are further away, and the darkest clouds are the furthest.



The plane is about to enter the 3x3x3 grid. Unless it turns, it will hit the white cloud in the middle of the top row.

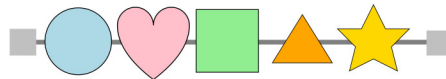
**Question / Challenge**

Which instructions will get through the 3x3x3 grid without flying into the clouds?



**T12. Bracelet Beads**

Beaver Anne has a bracelet with five beads: a circle, square, heart, triangle, and star. She loves making new bracelets by changing the order of the beads. To remember which beads are next to each other, she uses a table. She writes “1” if two beads are side by side and “0” if they’re not. For example, in the bracelet below the heart bead is placed between the circle and square shapes:



Thus, in the row starting with a heart (in the table below) you will find a “1” in the column headed with the circle, and in the column headed with the square:

Shape					
	0	0	1	0	0
	0	0	1	1	0
	1	1	0	0	0
	0	1	0	0	1

**Question / Challenge**

Can you help Anne complete the table?

Which one of the answers correctly represents the bottom row of the table ?

A) 0 0 0 1 0

B) 1 0 0 1 0

C) 0 0 0 0 1

D) 0 0 1 0 0

**T13. Berta’s Library**

Berta is organizing her library so that she can easily find her books. All her books have a code with three parts:

	first number (1, 2, or 3)
	letter (A, B, or C)
	second number (1, 2, or 3)

Berta sorts her books from left to right like this:

1. First by letter in alphabetical order
2. then by first number from lowest to highest
3. and finally by second number from lowest to highest

**Question / Challenge**

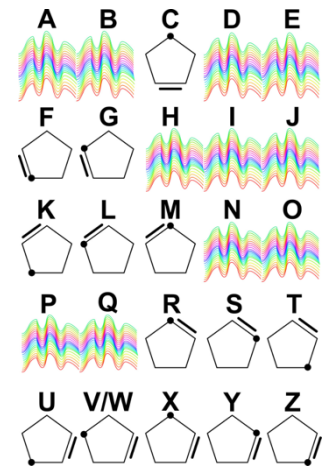
After Berta sorts her books, what is the final order?



- A)
- B)
- C)
- D)

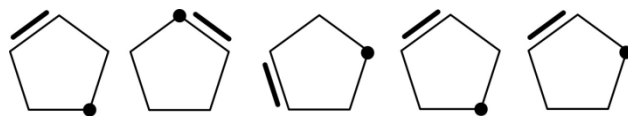
**T14. A message from outer space**

Tim received a signal from outer space! The signal contains an alien alphabet and a message. Unfortunately, some of the letters have been rendered illegible by galactic radiation. But luckily the alphabet seems to follow a clear rule.



**Question / Challenge**

What is the hidden message in the following image?

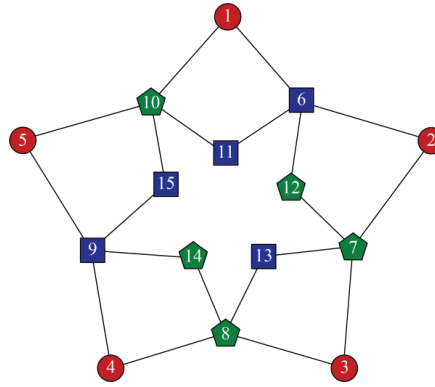


- A) OCEAN
- B) ORION
- C) FLOUR
- D) STORM

**Tasks T15 – T21 carry 5 points each**

**T15. Lights**

Sofia has fifteen programmable lights of three types (●, ■, and ▲). She numbers them from 1 to 15 and connects them in a star shape as shown.



She programs the lights as follows:

- Each light is controlled with a switch.
- Each light turns on if the two lowest-numbered lights connected to it are **both** on.
- Each light turns on if exactly one of the two lowest-numbered lights connected to it is on. In other words, one of these lights is on but **not** the other.

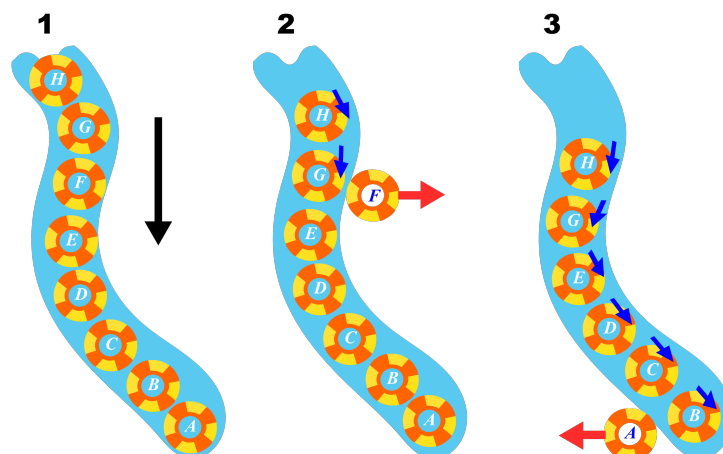
**Question / Challenge**

All the lights are off and then Sofia turns on lights 1, 2, and 4. This triggers other lights to turn on, following Sofia's programming. When the lights stop changing, which of the lights 11 to 15 are on?

- |                                   |                               |
|-----------------------------------|-------------------------------|
| A) Lights 11, 12, 13, 14, and 15  | B) Only lights 12, 13, and 15 |
| C) Only lights 11, 12, 13, and 14 | D) Only lights 11, 13, and 14 |

**T16. Inner tubes**

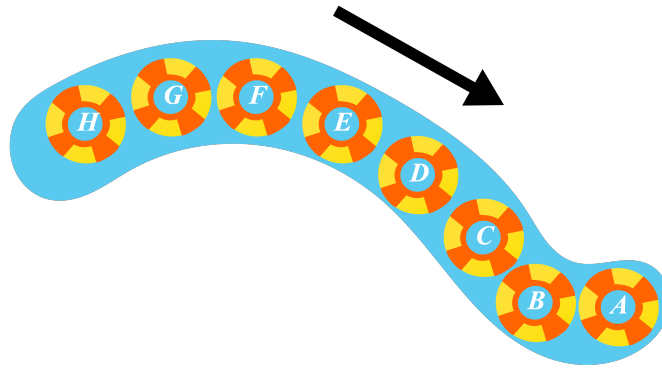
After being used on a water slide, inner tubes float downstream(→) in a short lazy river. At the end of the river, they gather in a line as shown.



When an inner tube is pulled out(→) of the water for someone's next ride, each inner tube behind it floats one position(→) downstream to fill the gap. In our example above the number of times an inner tube floats one position downstream is 8.

**Question / Challenge**

Eight inner tubes gather as shown below. Then five inner tubes are pulled out of the water in the order B, G, E, D, H. In total, how many times does an inner tube float one position downstream?



A) 10

B) 11

C) 12

D) 13

**T17. Scoreboard**

The beaver teams of Bitaro and Bibako are playing a game to score points on the field.

But they forgot to bring something to record the scores.

So, they decided to use their hats and the hat rack on the bench to keep track of their points.

They used this way to count:

- A hat on the rightmost spot means 1 point.
- The next spot to the left means 2 points.
- Then comes 4 points, and then 8, 16, 32, and so on.
- You can make many numbers by placing hats in different spots.
- Each hat adds its value to the total. Empty spots are 0 points.

Here are some examples:

0 points = empty · empty · empty · empty · empty · empty



1 point = empty · empty · empty · empty · empty · hat



2 points = empty · empty · empty · empty · hat · empty



3 points = empty · empty · empty · empty · hat · hat



4 points = empty · empty · empty · hat · empty · empty

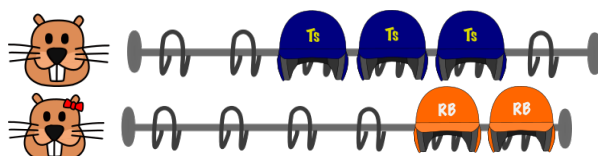


...and so on.

At the end of the game, their scores looked like this:

Bitaro's team: empty · empty · hat · hat · hat · empty

Bibako's team: empty · empty · empty · empty · hat · hat



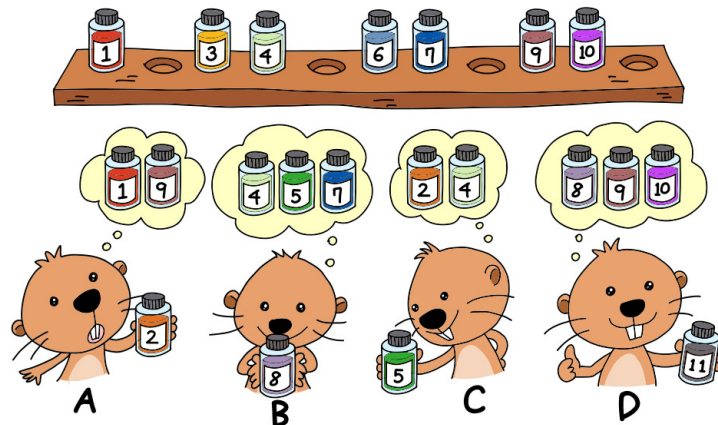
**Question / Challenge**

What is the point difference between the two teams?

- A) 11 point                      B) 9 point                      C) 7 point                      D) 5 point

**T18. Sandpainting**

Sand painting is an activity where you pour coloured sand onto paper and add glue to fix it. Since the glue dries quickly, students must choose all their colours before starting. Each jar, numbered 1 to 11, contains a different colour of sand. The teacher gives each student a jar. The numbered jars that ANDY, BORA, CIEL, and DONA currently hold and the other jars they want are shown below.



Each student must get all the colours they want before they start painting. After they are finished, everyone must return all their used jars. If a student wants to use a jar that another student has, they have to wait until the jar has been returned.

**Question / Challenge**

Who is the last student to start colouring?

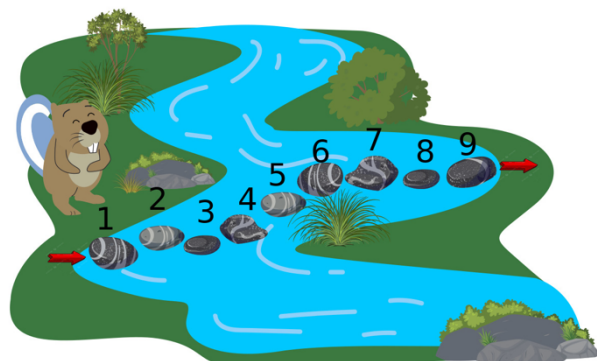
- A) ANDY                      B) BORA                      C) CIEL                      D) DONA

**T19. Crossing the river**

Upon entering Sierra de la Ventana Municipal Park, Guille the beaver receives a code that tells him how to cross the river by jumping over the stones.

**How to read the code:**

- **A** means: Jump forward two stones.
  - If Guille is already on stone number nine, he stays there.
  - If Guille is already on stone number eight, he will then reach the finishing shore.
- **B** means: Go back one stone.
  - If Guille is still on the starting shore, he doesn't move.



For example, with the following code:

**B-A-A-A-B-A-A-B-A**

the beaver Guille would cross in this way:

<b>B</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>B</b>	<b>A</b>	<b>A</b>	<b>B</b>	<b>A</b>
Stay in place	Stone 2	Stone 4	Stone 6	Stone 5	Stone 7	Stone 9	Stone 8	Cross the river

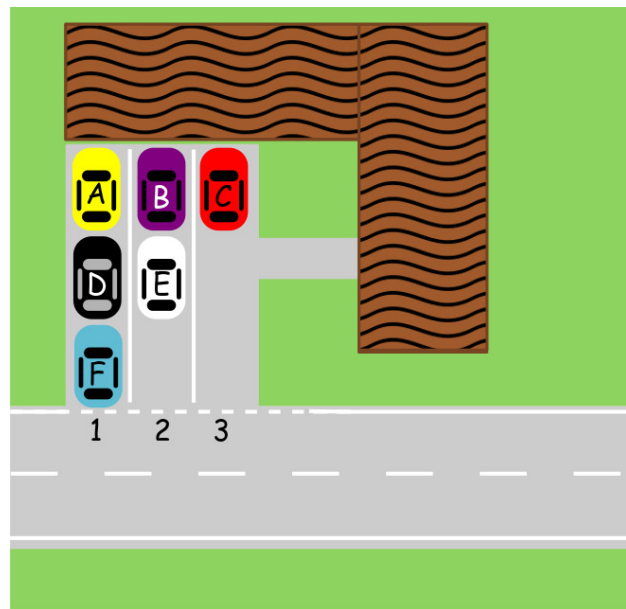
**Question / Challenge**

Which of the following codes would allow Guille the beaver to cross the river?

- A) B – B – A – A – A – B – A – A
- B) A – A – B – B – A – A – A – B
- C) A – A – A – A – B – B – A – A
- D) B – A – B – A – B – A – B – A

**T20. Parking at the party**

Ana is organizing a birthday party and invited all of her friends. Friends are coming by car. At Ana’s driveway there is space for 9 cars, but they need to park in three columns by 3 cars one after another. Each guest is asked to park in the first available free space in any column.



In the example, car A arrived first, car D second, car C third, and car F must leave before car D can.

Guests arrive in this order:










**Ann, Bob, Claire, David, Elen, Frank, George, Hailey, Ivan**

They will leave the party in the following order:










**George, David, Frank, Ivan, Hailey, Claire, Bob, Ann, Elen**

**Question / Challenge**










How should the cars be arranged in columns, as they arrive, so that no car blocks another car that needs to leave earlier?

		
		
		
1	2	3










A)

		
		
		
1	2	3

B)

		
		
		
1	2	3

C)

		
		
		
1	2	3

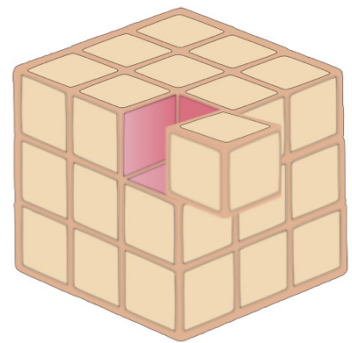
D)

**T21. Cube Cake**

Sheila and Nicholas bake a cube-shaped cake for Sheila's birthday.

They then cover the cake with white chocolate, except for the bottom.

When the guests arrive, they cut the cake into smaller cubes so that everyone can have a piece.



**Question / Challenge**

How many of the smaller cubes will have exactly two sides covered with white chocolate?

- A) 11                      B) 8                      C) 23                      D) 12

END