Time Allowed: **150 minutes**

Tasks T1 – T8 carry 3 points each

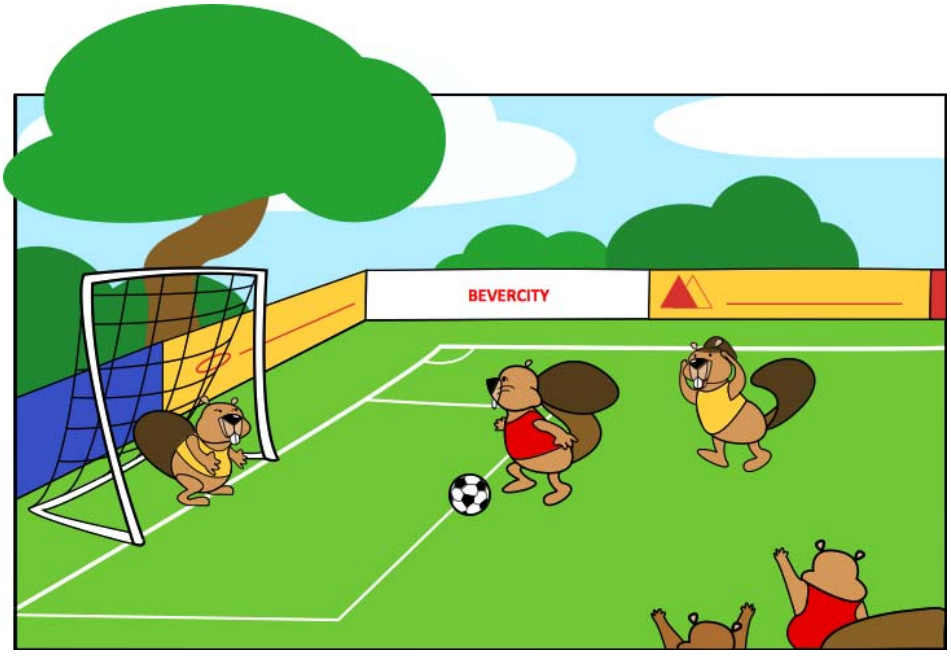
T1. Soccer Game

The Beaver Rangers have been playing a soccer game against the Forest Raiders.

The following list shows the names of the players that scored a goal:

minute 1: Anna
minute 10: Dick
minute 35: Bernard
minute 47: Smithy
minute 73: Backy
minute 89: Richard

The game was very exciting, no team ever scored twice in a row.



Question / Challenge:

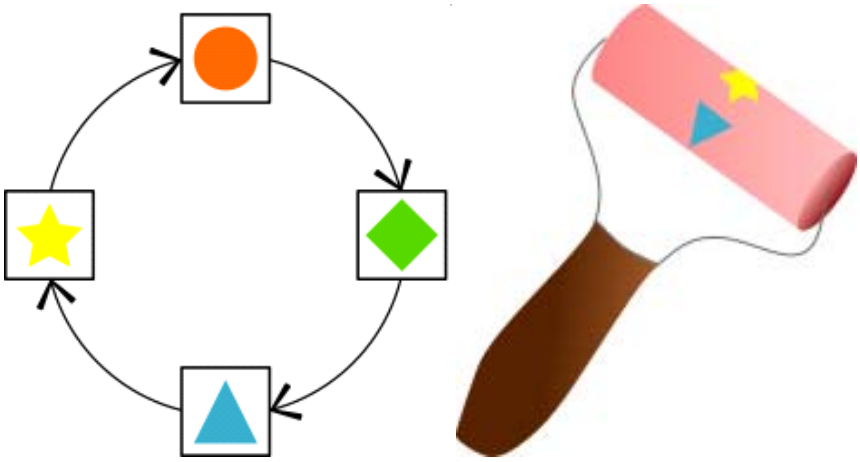
What was the final standing of the game?

A) 6-0 **B)** 5-1 **C)** 4-2 **D)** 3-3

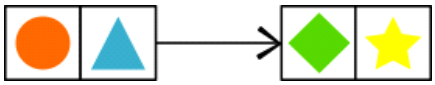
Time Allowed: **150 minutes**

T2. Bebras Painting

The little Beavers can change any painting using a magic roller that works as follows: the roller replaces the current shape with the next shape, as shown by the arrows in the figure.

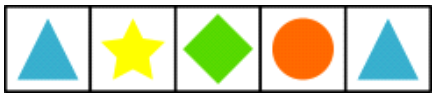


When beaver Ben uses the magic roller over the original painting on the left, he gets the painting on the right.

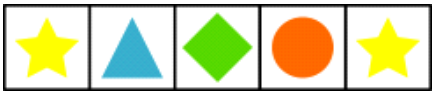


Question / Challenge

What will the painting below look like after applying the magic roller?



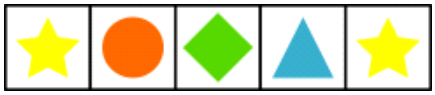
A)



B)

C)

D)



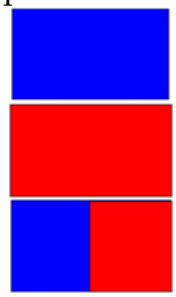
Time Allowed: **150 minutes**

T3. Beach Towel Code

Albert, the father of Beatrix and Richard, is a guard on the beach. Beatrix and Richard are playing with other children on the beach.

To inform Beatrix and Richard, Albert uses the flagpole and the following flags.

Flag on top:

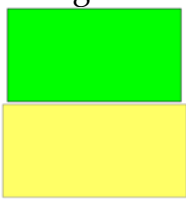


If the flag is blue, the message is for Beatrix

If the flag is red, the message is for Richard

If the flag is blue-red the message is for Beatrix and Richard

The middle flag:



Meal available

Drink available

The bottom flag:

Hurry

No need to hurry

Question / Challenge

What does the following flags on the pole mean?

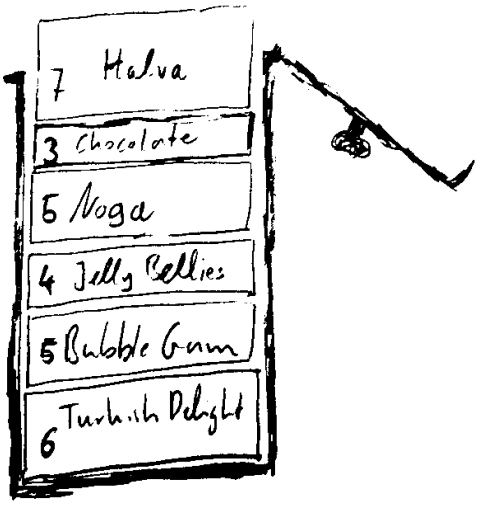
A) Richard there is a meal for you, hurry!
B) Beatrix there is a meal for you, hurry!

Time Allowed: **150 minutes**

C) Beatrix and Richard there is a drink for you, no need to hurry
D) Richard there is a drink for you, no need to hurry

T4. Ecology Class

Beaver Tom got a lot of sweets from his grandparents. He wants to put them into the box, which is 27 units high. When he puts all of his sweets into the box, the lid wouldn't close.



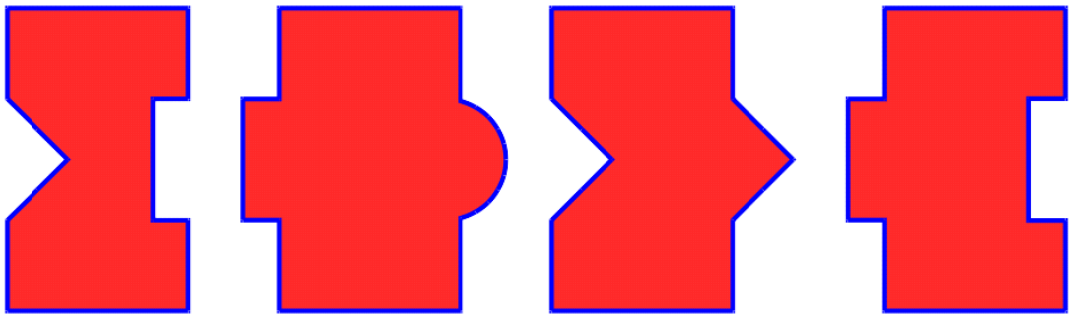
Question / Challenge

Which package of sweets should beaver put out of the box, so he could close the lid and keep as many sweets as possible:

A) halva (7)
B) chocolate (3)
C) noga (5)
D) Jelly Bellies (4)

T5. Matching Pieces

The beavers have a new puzzle game. The pieces have tongues or notches on their sides. Pieces with matching tongue and notch can be put together to form a pair.



Question / Challenge

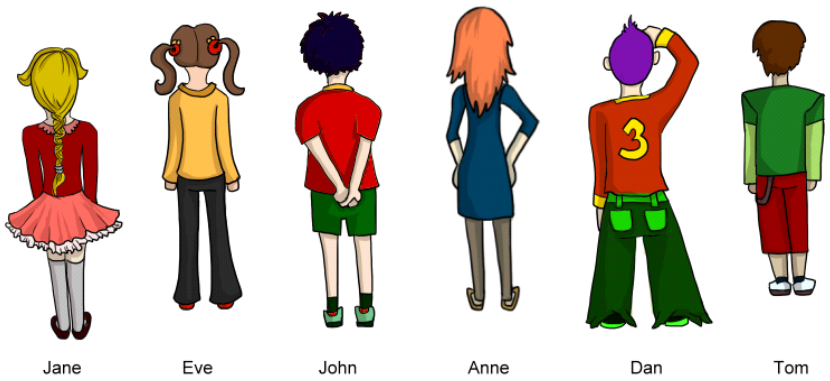
How many pairs can you make at the same time?

A) 0 **B)** 1 **C)** 2 **D)** 3

Time Allowed: **150 minutes**

T6. Broken Window

Six children were playing in the yard.



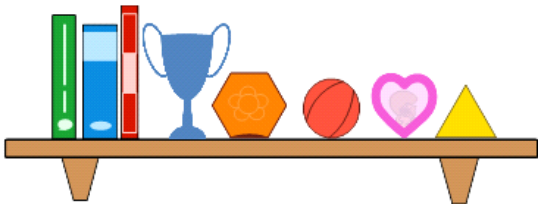
One of them threw a ball and broke Mr. Beaverdam's window.
When Mr. Beaverdam came to the broken window he was only able to see the back of the child running away. He only remembers that the culprit had red shirt and short dark hair.

Question / Challenge

Who broke the window?

A) Jane **B)** Dan **C)** John **D)** Tom

T7. Shelf Sort



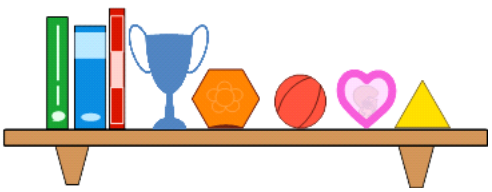
Beatrix is trying to rearrange her shelf.
She has made two rules:

1. No two rectangular items are to sit next to each other.
2. Circular items must not sit next to rectangular items.

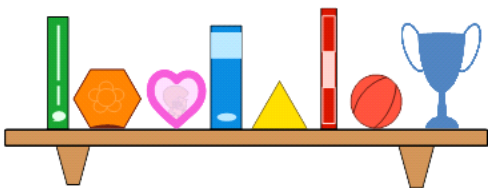
Question / Challenge

Which one of these shelves would show Beatrix has followed her rules correctly?

A)

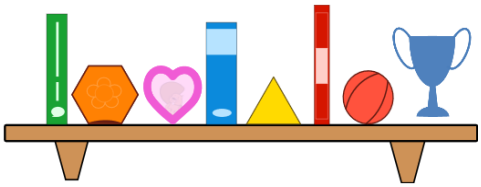


B)

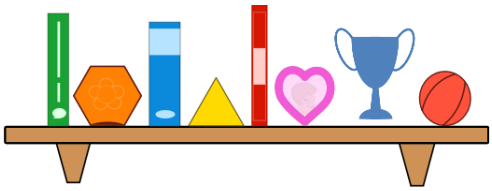


Time Allowed: **150 minutes**

C)

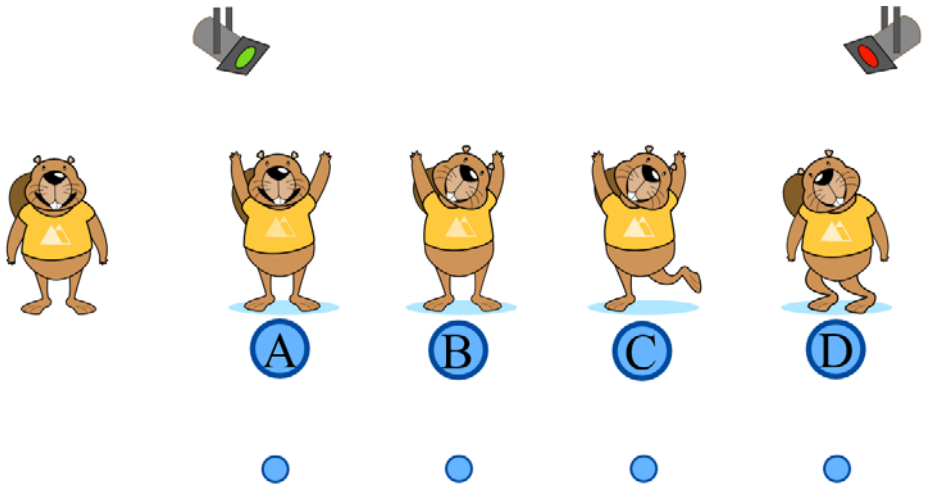


D)



T8. Dancing Beavers

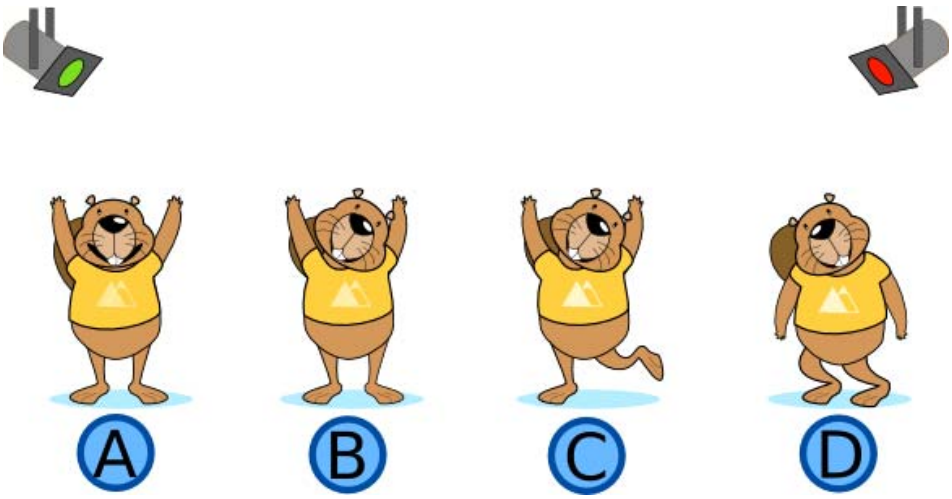
Johny learns a new dance.



He starts his dance in this position:

In the dance he then makes the following consecutive moves:

- Bend both knees
- Lift both hands
- Tilt his head to a side
- Straighten his knees
- Tilt his head to the other side
- Puts his hands down
- Straighten his head



Time Allowed: **150 minutes**

Question / Challenge

In which one of these positions has Johny been during the dance?

A) A **B)** B **C)** C **D)** D

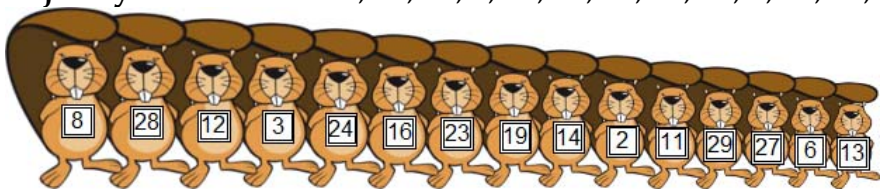
Tasks T9 – T16 carry 4 points each

T9. Ordered jersey numbers

Two teams of 15 players are shown below, with numbers printed on their jerseys. The players of the first team are ordered by jersey number. The players of the second team are ordered by player height.

Team 1's jersey numbers are: 1, 4, 5, 7, 9, 14, 15, 17, 18, 19, 21, 22, 23, 25, 26

Team 2's jersey numbers are: 8, 28, 12, 3, 24, 16, 23, 19, 14, 2, 11, 29, 27, 6, 13



Question / Challenge

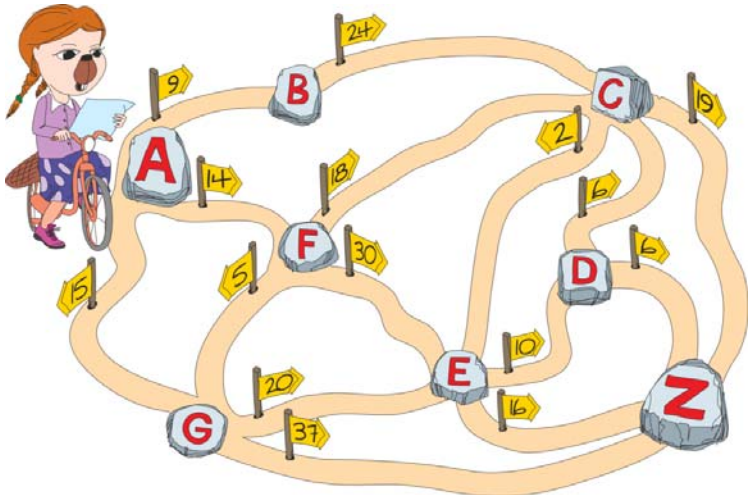
How many jersey numbers are used in team 1 that are also used in team 2?

A) 1 jersey number
B) 2 jersey numbers
C) 3 jersey numbers
D) 4 jersey numbers

T10. Many trails

Cleveria exploring paths from village A and to village E. Cycle paths are one-way-only.

Time Allowed: **150 minutes**



Question / Challenge

How many different trails she can choose?

A) 2 **B)** 4 **C)** 5 **D)** 7

T11. Encoding Letters

For her birthday beaver Barbara has been given two stamps. With the first one she can produce a little flower, with the second one a little sun. Being a clever Beaver girl she thinks of a way to write her own name with these two stamps by encoding letters with a sequence of flowers and suns as follows:

Letter	B	A	R	E	Y
Code					

The name “Barbara” would be encoded as:

Question / Challenge

Time Allowed: **150 minutes**

She then goes on to also write down the name of her friend Abby. What is the sun-flower-code for the name of her friend Abby ?

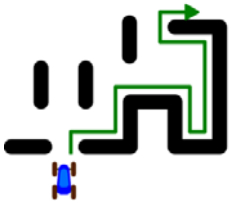
A) 

B) 

C) 

D) 

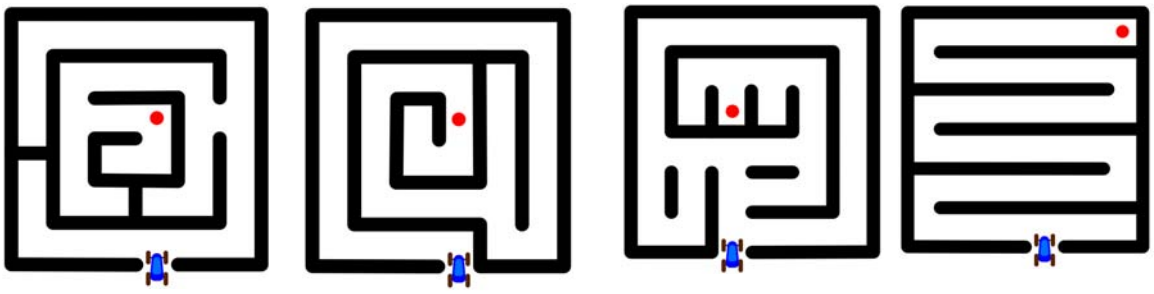
T12. Mazes



A robotic car uses a simple rule to drive through a maze: it will turn right whenever it can. The picture on the right gives you an example on how the robot would drive through a maze.

Question / Challenge

Using this method, in how many of the following mazes will the car reach the red dot?



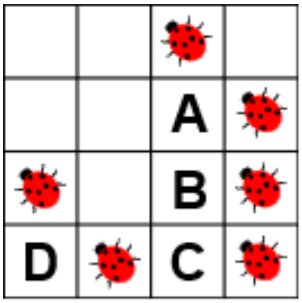
A) B) C) D)

A) 1 **B)** 2 **C)** 3 **D)** 4

T13. Ladybugs

There is a ladybug in some squares of the grid below. We say that two squares are neighbours if they share a side or corner. This means that each square has up to 8 neighbours.

Time Allowed: **150 minutes**



Question / Challenge

Which of the squares has the most neighbouring ladybugs?

A) A **B)** B **C)** C **D)** D

T14. Tunnel

Three beaver friends are digging a tunnel. Each beaver specializes in a certain type of tunnel: a small passageway, a long passageway or a high room.

Anna: 

Benjamin: 

Carla: 

Question / Challenge

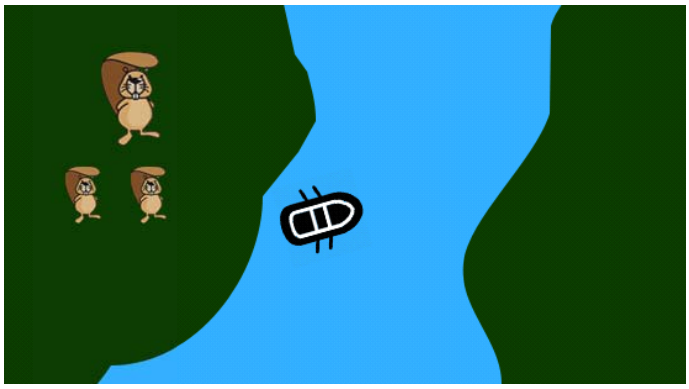
The beavers take turns in digging and repeat until they are finished. They started from the left. In which order did they dig tunnel below?

A) Carla – Benjamin – Anna
B) Anna – Benjamin – Carla
C) Benjamin – Carla – Anna
D) Anna – Carla – Benjamin

T15. Crossing the River

Time Allowed: **150 minutes**

Father beaver and his two cubs want to cross the creek without getting wet. They use a rowboat that can carry up to 100 kg.
Father beaver weighs 100 kg; each cub weighs 50 kg. Because they cannot all fit in the boat they decide to take several trips across. In each crossing there must be at least one beaver in the boat.



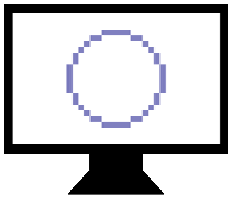
Question / Challenge

How many crossings must the rowboat make before all the beavers are on the other side of the creek?

A) 3 **B)** 4 **C)** 5 **D)** 6

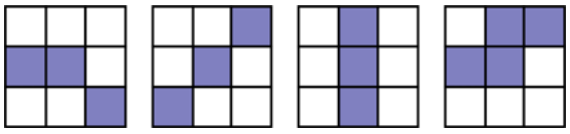
T16. Pixel Circle

Tanechka draw a circle in an image editor and zoomed into it. She noticed the circle consisted of small squares, i.e., pixels.



Question / Challenge

Which block of 9 pixels is not a part of the picture above?

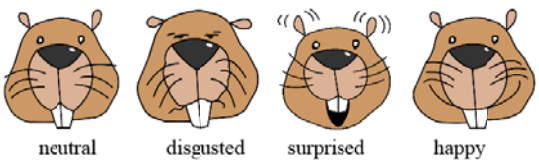


Tasks T17 – T24 carry 5 points each

T17. Let your heart talk

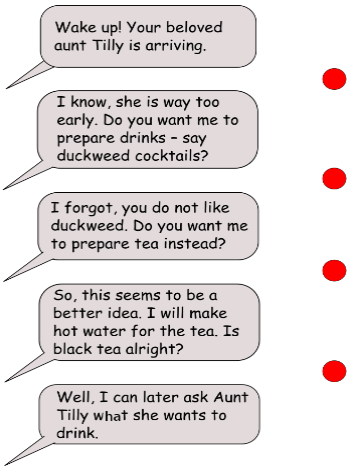
The service robot is able to recognize four basic emotions: neutral, disgusted, surprised and happy.

When the robot talks to the beaver, it observes the beavers face and decides what to say next depending on the beaver's facial expression. These are the four possible facial expressions:



Time Allowed: **150 minutes**

Below we can see a little conversation between the robot and the beaver, but red dots have replaced the beaver facial expression.



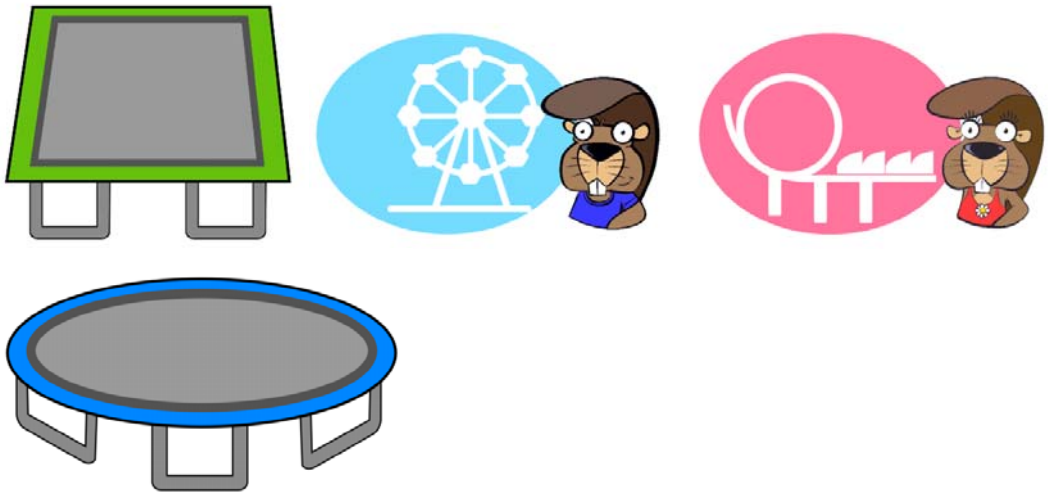
Question / Challenge

What is the most plausible sequence of facial expressions of the beaver for this conversation ? Each face can be used only once.

A) neutral, disgusted, surprised, happy
B) disgusted, happy, neutral, surprised
C) surprised, disgusted, happy, neutral
D) happy, neutral, surprised, disgusted

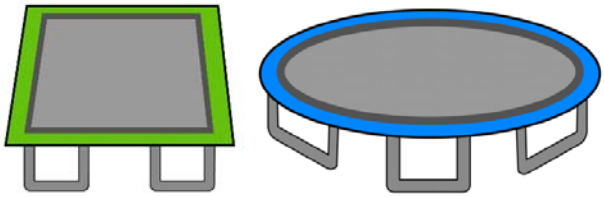
T18. Tricky Trampolines

Beatrix and Bruce are at the amusement park, where there are 2 trampolines. One is square-shaped and the other is circle-shaped.



Beatrix makes a *fun* plan.
1. Both beavers must jump in this sequence:

Time Allowed: **150 minutes**



2. When using the circle-shaped trampoline, Beatrix, who is wearing red, starts first.
3. When using the square-shaped trampoline (after they used the circle-shaped one), Bruce, who is wearing blue, starts first.
4. Both beavers wait for their turn on each of the trampolines.

Question / Challenge

In what order will the beavers come off the square-shaped trampoline?

A)

B)

We cannot tell.

C)

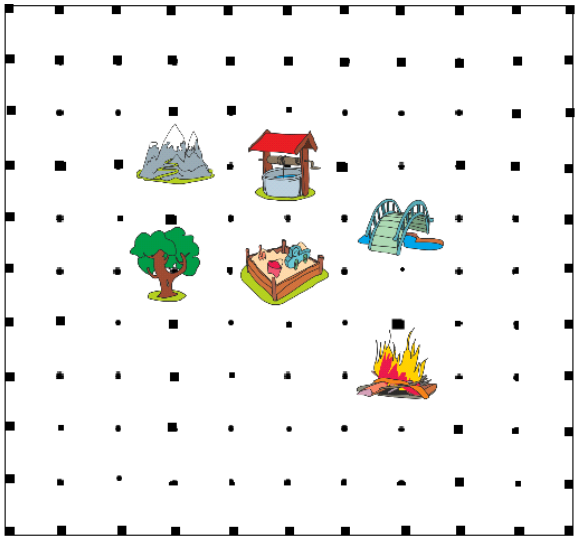
Depends on who starts first.

D)

T19. Treasure map

Beaver Ana has a treasure map. She knows that the treasure position is at (7|7). Ana also knows that the well  is at (7|5) and the fireplace  is at (3|3). Unfortunately, Ana forgot where the reference point is and how to read the map (from the left side or from the right side; from top or bottom).

Time Allowed: **150 minutes**



Question / Challenge

Under which image is the treasure?

A) 

B) 

C) 

D) 

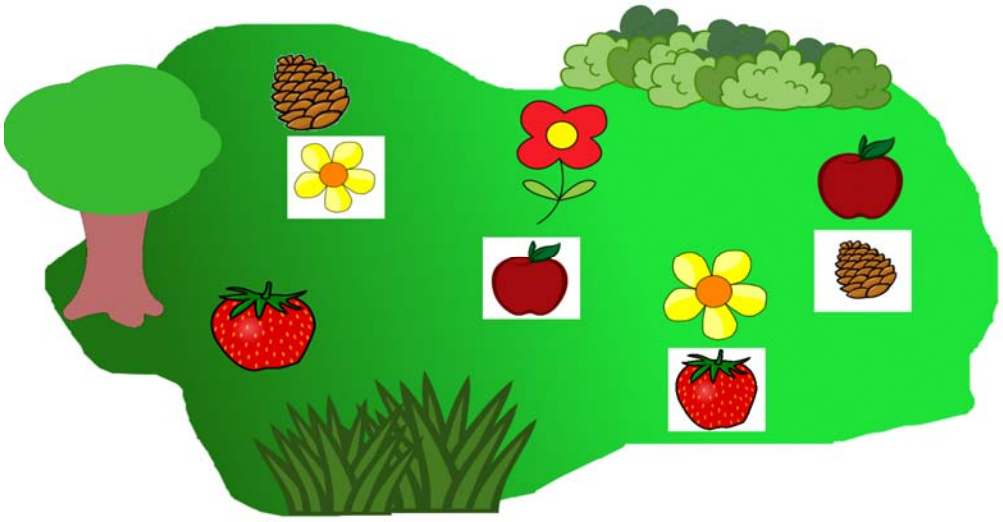
T20. Food Festival

The beavers are preparing for the Food Festival, and they would like to bake the Crunchy Cake; but their cook is on holiday. Kate promised to make a cake but all she knows is that it is important to add the five essential ingredients in the right order.

When she gets to the garden, she realizes that with every ingredient there is a piece of paper showing the picture of the ingredient to be added next. There is only one ingredient with no paper next to it.

Time Allowed: **150 minutes**

The garden looks like this:



Question / Challenge

Which ingredient should be added first?

A)

B)

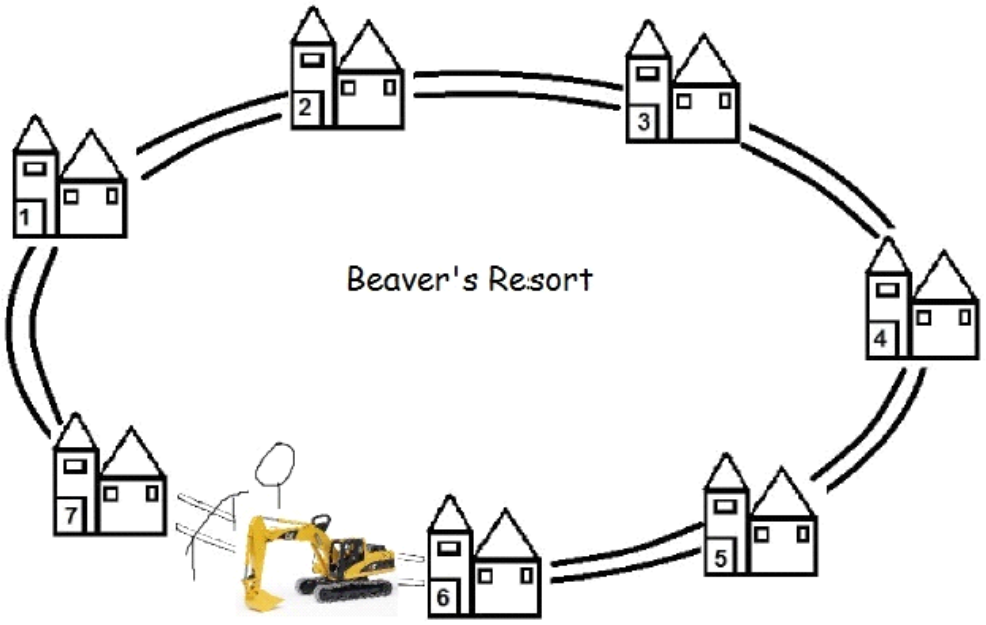
C)

D)

T21. Beaver Hotel

Beaver Billal went to Beaver's Resort with his friends for holidays. They stayed at different houses. The distance between two nearby houses is 100 meters. Billal's place is house 1, and his friends stay at house 3, house 5 and house 7. One night Billal visited his friends to discuss some plans for the next day. We know that he only traveled on the main road and that because of some works, he did not travel between houses 6 and 7.

Time Allowed: **150 minutes**



Question / Challenge

How many meters Billal walked in the night, when visiting his friends, assuming he wanted to be as quick as possible?

A) 700 meters
B) 900 meters
C) 1000 meters
D) 1400 meters

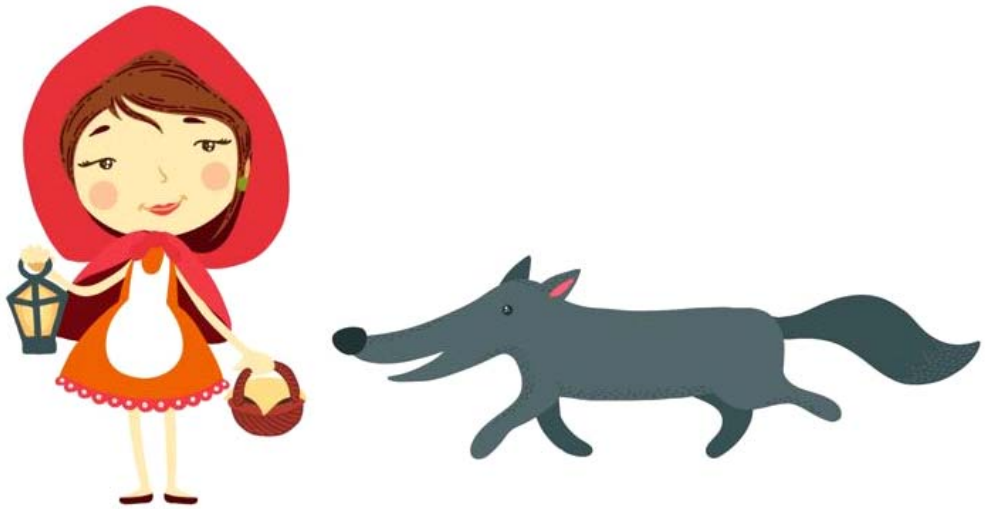
T22. The Characters

One day Little Red Riding Hood meets the Wolf and says: "Yesterday, I was lying all day!"

The Wolf replies: "Me too!"

Time Allowed: **150 minutes**

We know that Little Red Riding Hood tells only lies on every Monday, Tuesday and Wednesday. And the Wolf is lying exactly on Thursdays, Fridays and Saturdays. They both are telling the truth on the other days.



Question / Challenge

Which day did they meet?

A) Sunday **B)** Monday **C)** Thursday **D)** Saturday

T23. Distance Measures

Betaro Beaver has discovered five types of new magic potions with the following effects:

- one makes ears longer;
- another makes teeth longer;

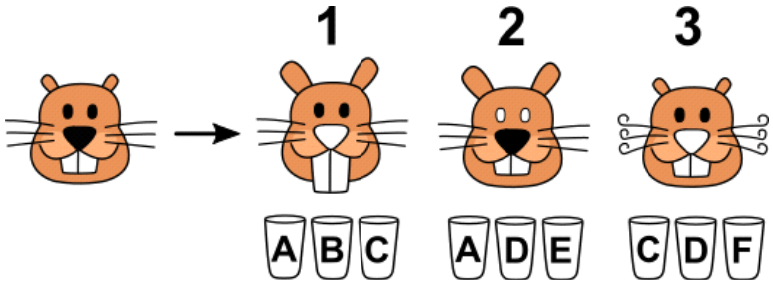
Time Allowed: **150 minutes**

- another makes whiskers curly;
- another turns the nose white;
- the last one turns eyes white.

Betaro put each magic potion into a separate beaker. There is an additional beaker containing pure water, so there are six beakers with labels A to F. However, he forgot to record which beaker contains which magic potion!

Then, he set up the following experiments to identify the magic potion in each beaker.

- Experiment 1: If he takes the content of beakers A, B and C together, then the effects are shown in Figure 1.
- Experiment 2: If he takes the content of beakers A, D and E together, then the effects are shown in Figure 2.
- Experiment 3: If he takes the content of beakers C, D and F together, then the effects are shown in Figure 3.



Question / Challenge

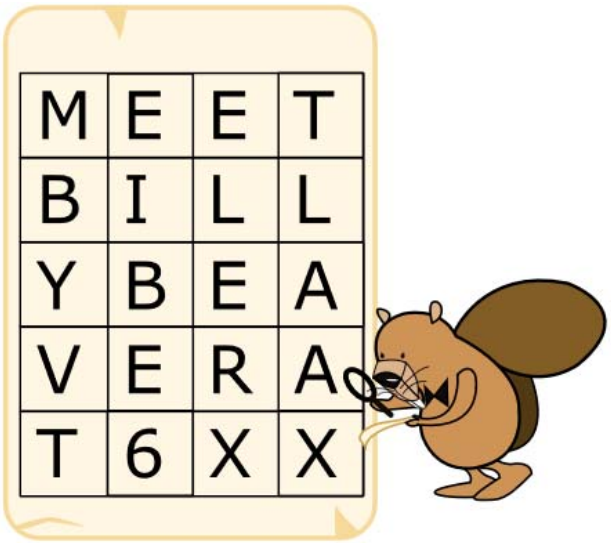
Which one of the beakers contains pure water?

A) A **B)** B **C)** C **D)** D

T24. Secret Messages

Agents Boris and Bertha communicate using secret messages.

Time Allowed: **150 minutes**



Boris wants to send Bertha the secret message:

MEETBILLYBEAVERAT6

He writes each character in a 4 column grid from left to right and row by row starting from the top. He puts an X in any unused spaces. The result is shown below.

Then he creates the secret message by reading the characters from top to bottom and column by column starting from the left:

MBYVTEIBE6ELERXTLAAX

Bertha then uses the same method to reply to Boris. The secret message she sends him is:

OIERKLTEILH!WBEX

Question / Challenge

What message does Bertha send back?

A) OKWHERETOMEET!
B) OKIWILLBETHERE!
C) WILLYOUBETHERETOO?
D) OKIWILLMEETHIM!