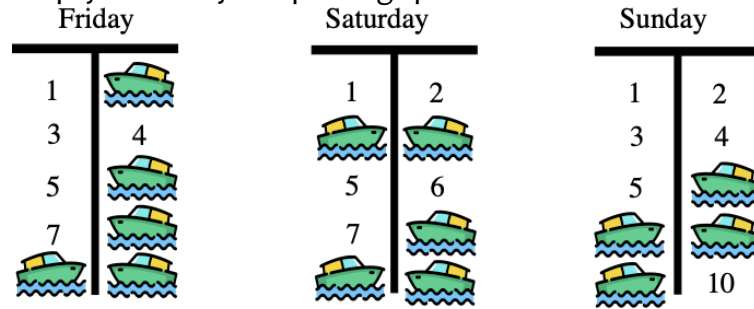


Tasks T1 – T7 carry 3 points each

T1. Free Parking Spaces

Each of ten parking spaces at a marina are either reserved or empty as shown. For example, parking space 1 is empty on Friday but parking space 2 is reserved on Friday.



Tom needs to choose to arrive on Friday or Saturday. He also needs to choose a parking space that he can reserve for two days in a row. For example, one option is for him to arrive on Saturday and to reserve parking space 1.

Question / Challenge

How many options does Tom have?

- A) 4
- B) 5
- C) 6
- D) 8

T2. Online Class

Teacher Ava conducts an online class from her home.

On her computer screen, Ava can see that there are 9 students who have joined her class: Emma, Maya, Bella, Lee, Raul, Hannah, Diana, Alice, and James.

Each of the 9 students is using a different computer in the school library.



Because the students are sitting next to each other in the library, Ava can also see on her screen who each student is sitting next to. Therefore she knows that all the students are sitting side by side in the library.

Question / Challenge

Which of the 9 students is sitting in the middle (5th position)?

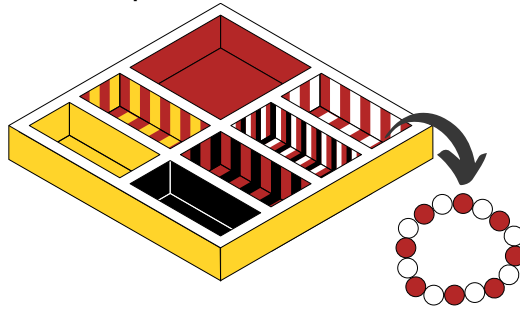
- A) Diana B) Raul C) Bella D) Hannah

T3. Organizing bracelets

Victoria has a box where she organizes her bracelets.

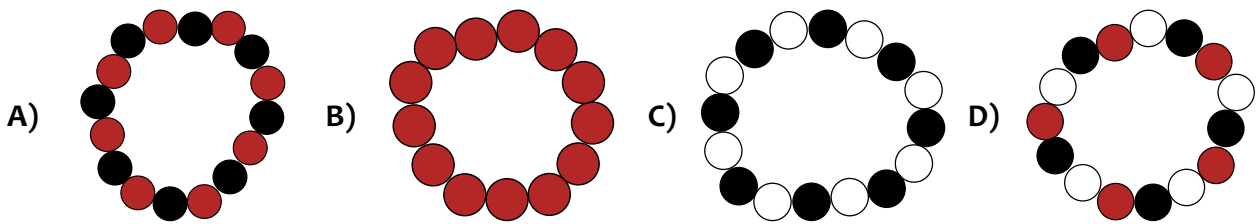
There are seven compartments in this box and Victoria puts each bracelet in a compartment with the same color pattern.

The image below shows where she puts one of her bracelets.



Question / Challenge

Which of these bracelets does **NOT** match any of the compartments in Victoria's box?



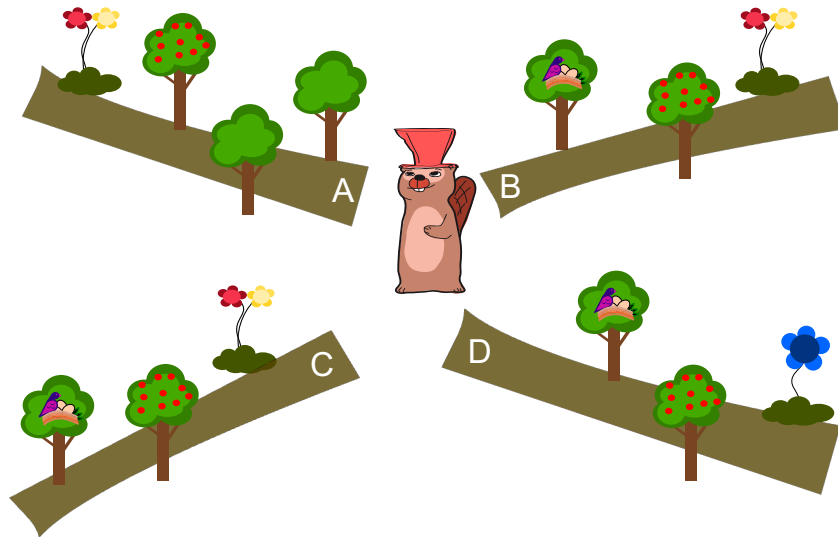
T4. Lost

Beaver Alia was playing in the forest. But when it was time to go home, she forgot which path to take. She remembered that on her way through the forest:

| | |
|--|--|
| <p>She first saw red and yellow flowers.</p> | |
| <p>Then, she saw an apple tree.</p> | |
| <p>Finally, she spotted a bird's nest in a tree.</p> | |

Question / Challenge

The picture below shows where Alia got lost along with paths leading out of the forest. Which path should Alia choose to go home?



A) path A

B) path B

C) path C

D) path D

T5. Coloring page

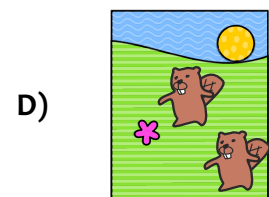
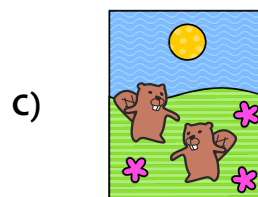
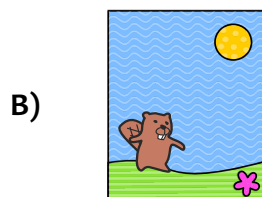
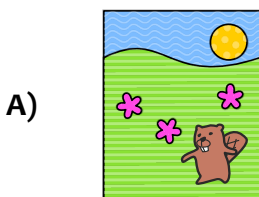
Bea started with five full tubes of colored paint. In her painting, the larger the total area of one color, the more paint of that color she used.

When Bea was finished, this is how much of each color was left in each tube:



Question / Challenge

Which painting could be Bea's?



T6. Step instruction

A robot paints flowers in a field of 5x5 squares. He has a set of 7 rules that can be applied to any row in the field - you just need to specify the rule number to draw flowers.

1. Draw a flower in the third square
2. Draw a flower in the second and fourth squares
3. Draw a flower in the first and fifth squares
4. Draw a flower in the second, third and fourth squares
5. Draw a flower in the first, third and fifth squares
6. Draw a flower in the first, second, fourth and fifth squares
7. Draw a flower in all squares

The robot is instructed to apply rule 1 to the 1st, 3rd and 5th rows, and to apply rule 7 to the 2nd row and 4th rows.

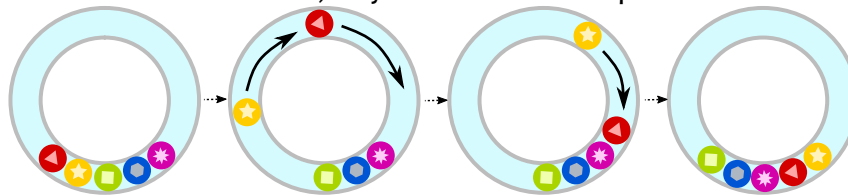
Question / Challenge

What does a drawing made by a robot look like?

A) B) C) D)

T7. Oliver's Rattle

Oliver has a see-through rattle with colorful balls. When he shakes it, some balls go through the rattle and move to the other side, as you can see in the picture.



Oliver shakes the rattle one more time.

Question / Challenge

Which picture shows Oliver's rattle?

A) B) C) D)

Tasks T8 – T14 carry 4 points each

T8. Berukone

Let's play Berukone! A Berukone puzzle consists of bubbles connected by links. To solve the puzzle, you have to join each pair of equal numbers with a black line. But a bubble with a number can have only one black link. And a bubble without a number can have at most two black links!

Some Berukone puzzles cannot be solved:

| | |
|-------------------------------------|--|
| This Berukone puzzle can be solved. | This Berukone puzzle cannot be solved. |
| | |

Question / Challenge

Only one of these Berukones cannot be solved. Which one?

A)

B)

C)

D)

T9. Bees

Mike owns 12 beehives, each with its own queen bee. He paints a small color point on the queen bee with a special marker. The color shows when each queen bee was introduced to a beehive. Here are the colors and the years they represent:

| Color | White | Yellow | Red | Green | Blue |
|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | | |
| Year introduced | Years ending in 1 or 6 | Years ending in 2 or 7 | Years ending in 3 or 8 | Years ending in 4 or 9 | Years ending in 5 or 0 |

The queen bees were introduced to their beehives in the following years:

| | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 2018 | 2024 | 2023 | 2024 | 2022 | 2020 | 2023 | 2022 | 2023 | 2024 | 2022 | 2021 |
|------|------|------|------|------|------|------|------|------|------|------|------|

Question / Challenge

Which color is most used by Mike?

- A) White B) Yellow C) Red D) Green

T10. Beaver Robot

Beaver Robot can say sentences containing exactly 3 words.

- The first word must be chosen from Box 1.
- The second word must be chosen from Box 2.
- The third must will be chosen from Box 3.

I Hate Carrot

Box 1
 I You
 Beaver
 You You
 Beaver

Box 2
 Love Like
 Hate Love
 Help Need
 Love Love

Box 3
 Help Love
 Carrot
 Love You
 Beaver

Question / Challenge

Which sentence below CANNOT be said by Beaver Robot?

- A) You Help Beaver B) Beaver Like Help C) I Love Love D) You Need Me

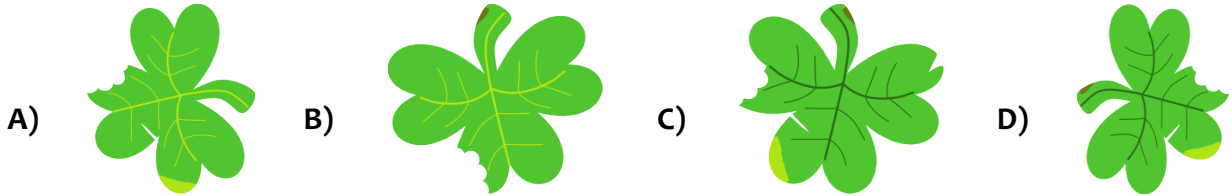
T11. Spinning shamrocks

Séamus dropped his favourite shamrock on the ground. Now it is mixed with other shamrocks, and might even be face-down! You can tell face-up by the lighter leaf veins and face-down by the darker veins. Below is a photo of Séamus' shamrock face-up.



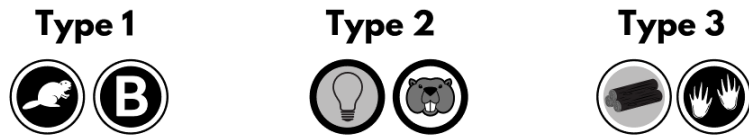
Question / Challenge

Which is Séamus' shamrock?

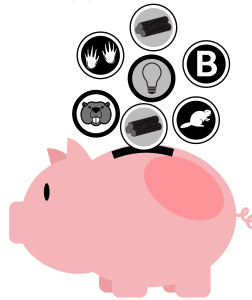


T12. Saving Beavercoins

There are three types of Beavercoins in Beaverland.
The following images show the Beavercoins from both sides.

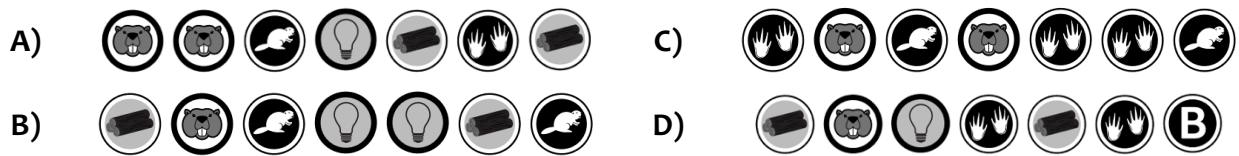


Ana keeps her seven Beavercoins in a piggy bank, as shown below.



Question / Challenge

Which of these are Ana's Beavercoins?

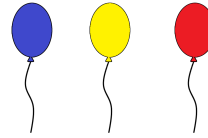


T13. Colorful balloons

Ana has four friends: Laura, Diego, María and Sofía.
She wants:

- For each friend to have a balloon of a different colour.
- For the balloon they have to be a different colour than their shirt and hat.

María already has the green balloon.




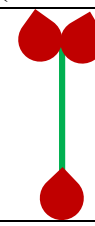
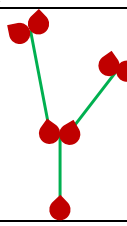
Question / Challenge

Which colour will have Laura's balloon?

- A) Blue
- B) Green
- C) Red
- D) Yellow

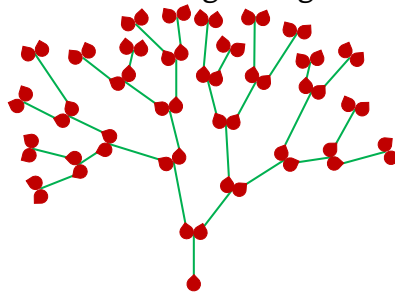
T14. Miracle Flower

At sunrise, one stem grows from each new bud of a miracle flower. The stem continues to grow throughout the day. At sunset, the stem branches into two new miracle flower buds and stops growing. This continues day after day and the miracle flower becomes more and more magnificent.

| New bud before sunrise | Miracle Flower after sunset (first day) | Miracle Flower after sunset (second day) |
|---|---|---|
|  |  |  |

Question / Challenge

How many days has this miracle flower been growing?



- A) 5 days
- B) 11 days
- C) 16 days
- D) 32 days

Tasks T15 – T21 carry 5 points each

T15. Gathering gifts

Beaver Agnes went to Serbia and bought seven gifts for her two young beavers, Alf and Bob. There are 3 gifts for Alf, and 4 gifts for Bob. Agnes placed the gifts in a shelf with seven compartments, with one gift in each compartment, and will give Alf and Bob each a card with the compartment number to start with.

Alf's card says 6, so in order to get his gifts, Alf will start by opening the gift in compartment 6. Next he will go to the compartment indicated on the gift and open that gift, and keep going until he finds the "END" card. By following the "chain" of cards, Alf will eventually receive all his gifts.

The gifts in each compartment, along with their cards, are shown below.



Question / Challenge

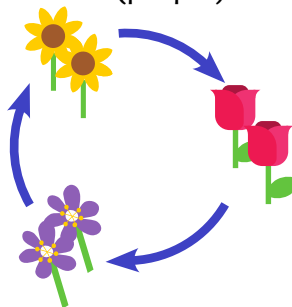
Which is the box in which Bob should start looking?

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

T16. Magic Garden

In the Magic Garden, a wonderful transformation occurs every night. Each flower can change its color based on a magical rule: If a flower is next to at least one flower of the same type, it will transform into the next type in the magical sequence. The sequence of transformation is:

Sunflower (yellow) → Rose (red) → Violet (purple) → Sunflower (yellow).



On first day, the garden had a row of flowers in this order:

Sunflower, Sunflower, Rose, Violet, Rose.



Question / Challenge

In the morning of Day 5, the Magic Garden had a remarkable transformation, with one type of flower covering the entire garden. Which flower has prevailed and filled the garden with its color?

- A) Sunflower
- B) Rose
- C) Violet
- D) Tulip

T17. The Magician's Garden

In "The Magician's Garden", flowers possess unique binary codes as below:

| | | | | | | | | |
|---------------|------|-------|-------|-----------|--------|----------|--------|---------|
| Flower | | | | | | | | |
| | Rose | Tulip | Daisy | Sunflower | Orchid | Lavender | Violet | Jasmine |
| Code | 000 | 001 | 010 | 011 | 100 | 101 | 110 | 111 |

The magician gardener has the power to use a magical spell to transform two flowers into different species. For instance, when the magician combines a Violet (110) and an Orchid (100), the result is a Daisy (010).

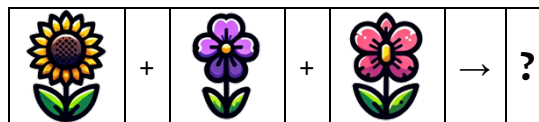


When the magician makes a spell, the binary codes in each position change as follows:

- $0 + 0 \rightarrow 0$
- $0 + 1 \rightarrow 1$
- $1 + 0 \rightarrow 1$
- $1 + 1 \rightarrow 0$

Question / Challenge

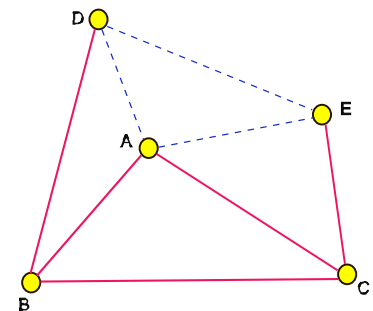
What is the result of this combination?



- A) Daisy (010)
B) Lavender (101)
C) Tulip (001)
D) Jasmine (111)

T18. Tourist trip

During a hiking tour, beaver Bob plans to walk each of 5 picturesque trails. He marked these trails on the map with continuous lines. Bob can add one of three trails to the route. These three trails (AD, AE, DE) are marked with dashed lines.



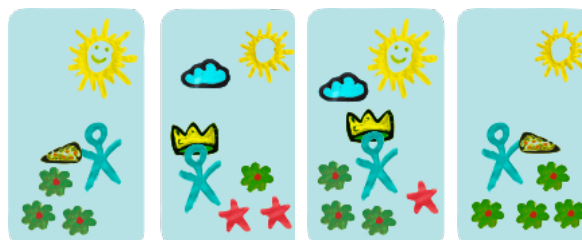
Question / Challenge

Which trail should be added to the track for Beaver Bob so that he can walk each of the six trails exactly once?

- A) AD
B) AE
C) DE
D) It is impossible

T19. Masterpiece Match

Manas creates drawings on his cards following one single secret rule. He has created four cards that obey this rule:



Anil observes the cards and creates a new card, but Manas says it does not obey the rule.



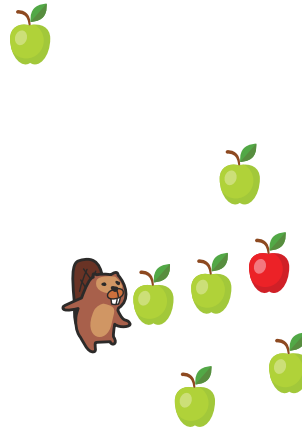
Question / Challenge

Which of the following could be the secret rule that Manas follows for drawing cards?

- A) If it is cloudy, then there are no flowers
- B) There must either be a red star or the man eats a pizza.
- C) If the man eats pizza, then he does not wear a crown
- D) There must either be a smiley sun or a cloud.

T20. Beaver and apples

A beaver is standing near some apples, as shown below.



You can instruct the beaver to eat the apples using two commands:

- N: go to the nearest apple and eat it.
- F: go to the furthest apple and eat it.

Question / Challenge

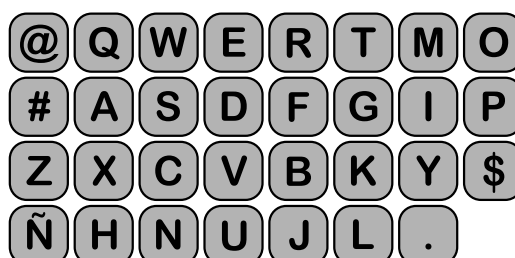
Which command sequence below can help the beaver eat the red apple on the last turn?

- A) N N N F F F N
- B) N N F F F F N
- C) N N F F F N F
- D) F F N N N N F

T21. Typos

Luisa is typing a list of birds found in Buenos Aires and her keyboard has malfunctioned. When she types a key, the character to the right is displayed instead. When she types a key that is at the end of the row, the character at the beginning of the row is displayed.

If she types **D**, then **F** is displayed. If she types **O**, then **@** is displayed.





Question / Challenge

The first three birds on the list are:

1. PIGEON
2. PARROT
3. OVENBIRD

Using the keyboard shown, what does Luisa have to type to create this list?

- A)

| | | | | | | | | |
|----|---|---|---|---|---|---|---|---|
| 1. | I | G | F | W | M | H | | |
| 2. | I | # | R | R | M | T | | |
| 3. | M | C | W | H | V | G | E | S |
- B)

| | | | | | | | | |
|----|---|---|---|---|---|---|---|---|
| 1. | I | G | F | M | W | H | | |
| 2. | I | # | E | E | M | R | | |
| 3. | M | C | W | H | V | G | E | S |
- C)

| | | | | | | | | |
|----|---|---|---|---|---|---|---|---|
| 1. | I | G | F | W | M | H | | |
| 2. | I | # | E | E | M | R | | |
| 3. | M | C | W | H | V | G | E | S |
- D)

| | | | | | | | | |
|----|---|---|---|---|---|---|---|---|
| 1. | Z | P | I | R | H | U | | |
| 2. | Z | S | T | T | # | M | | |
| 3. | # | B | R | U | K | P | T | F |

END