



Tasks

Escape Room – Teamwork



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Envelope A, Sheet 1



TEAM 1

On board of spaceship Discoverer

You and your spaceship crew are on your way home after collecting special moonstones. Recent studies have shown that the minerals in these moonstones can destroy resistant microbes. You hope to use them in the development of new drugs.

Suddenly you hear weak cries of help. The noise is coming from the direction of one of the crew's cabins.

After setting the spaceship to autopilot mode, you rush to the cabin door. Your team is there already.

They tell you that the opening mechanism is overridden by the security system. In this state, it is impossible to open from either side.

You look at each other in a slight state of panic. Someone clearly needs help, but you don't know how to get to them.

*This is a collaboration adventure, so remember to **communicate with your colleagues on another spaceship** to proceed in the game.*

*They have **access to different information** than you.*





Envelope A, Sheet 2

Step Ladder

You spot a portable step ladder on the corner. This would help you access anything that is too high for you. Like an air duct near the ceiling! You grab the ladder, only to discover that it is chained to the wall. A strong padlock keeps it in place.

The lock requires a **5-letter code** to open.



Answer



Table

On a table you find someone's forgotten coffee, some napkins, and orange zinnia flowers.

There is also a picture of the old show called *The Wheel of Fortune*.

Maybe it will come in handy later, for you or for your colleagues in another ship.





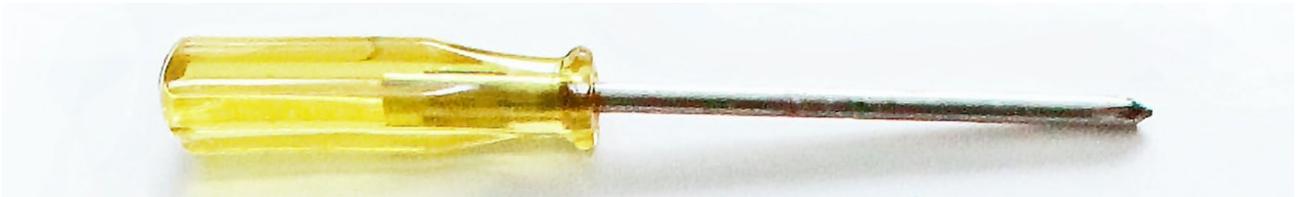
Envelope A, Sheet 4

Unlocked Maintenance Locker

While looking for a way to get to the crew's cabin, one of you spots an air duct near the ceiling. You might be able to crawl through it, but it is screwed shut.

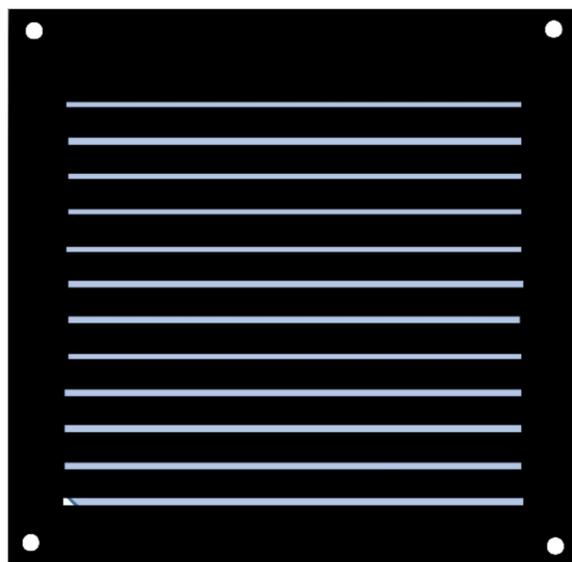
You turn to a maintenance locker to find something to open the air duct with. The locker is filled with all kinds of tools. Weak sobbing noises continue from the locked crew's cabin.

Then you spot a screwdriver!



You climb up with the help of the step ladder, then unscrew the grate and lift it off.

The air duct is just large enough for you to crawl through one by one.





Envelope B, Sheet 1

The Patient

You got to the patient! On the other side of the room, you see a small green humanoid leaning against the wall. He is holding a backpack tightly against their chest.

His chest moves up and down fast and regularly as a sign of breathing. Their eyes are open. The sound of breathing does not sound strange to the ear. The green and wrinkled skin looks intact.

You gaze quickly around the room to find monitoring tools to measure the patient's vital signs. There is a medical box, but it is locked.

It looks like you need a **key** and **two-digit corresponding number** to open the medical box.



Answer



Envelope B, Sheet 2

Bowl Full of Keys

On a wooden drawer, there is a glass bowl filled with keys. You spread the keys out on top of the drawer, so you can get a better look at them.

After a few guesses, you find the correct key to the medical box. Now you just need **the corresponding number** to open the medical box.

Attached to the bowl there is a note, saying:

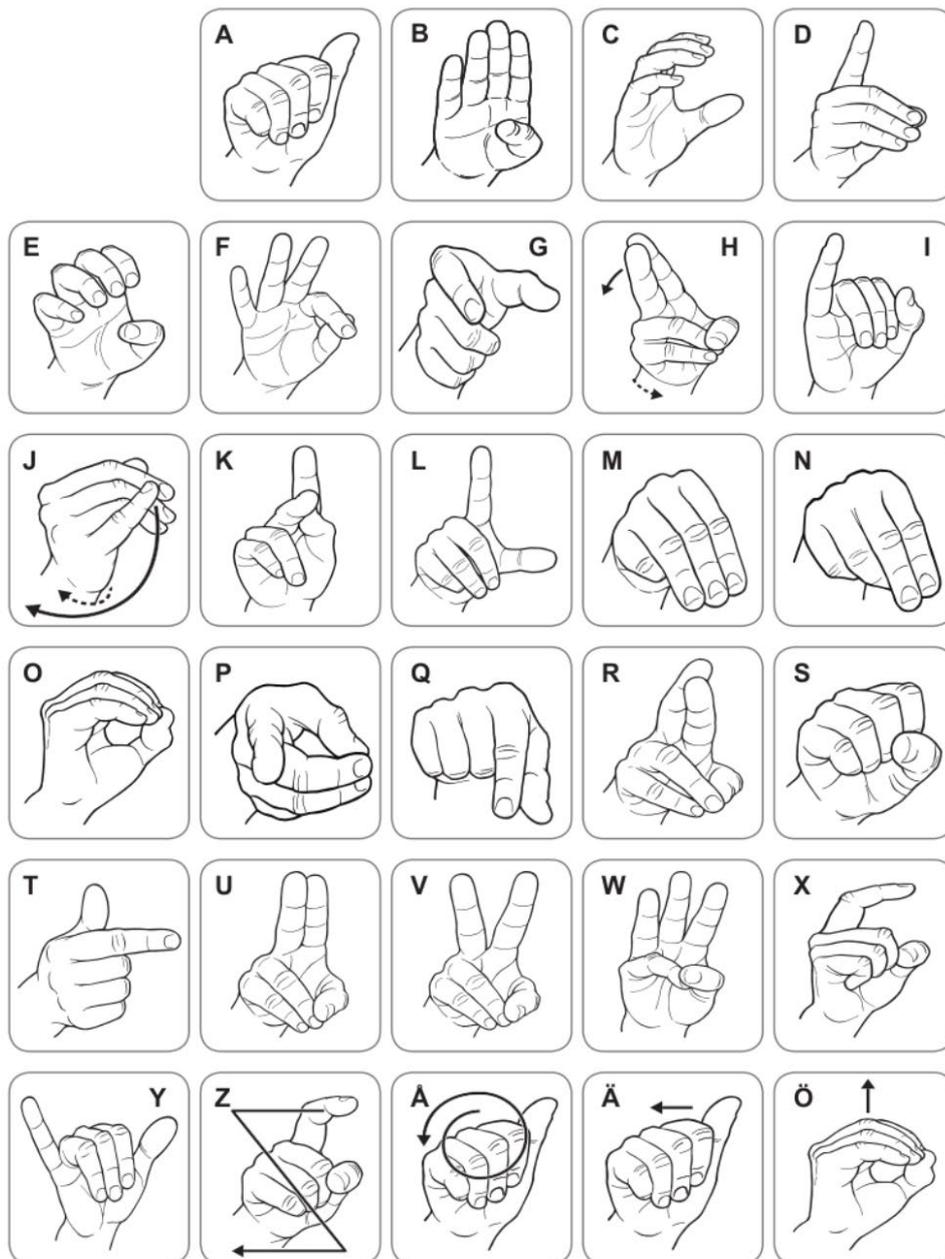
*Mirror, mirror on the wall,
what is the number,
who should we call?*





A Poster: "Fingerspelling Alphabet"

Hanging on the wall, there is a curious poster with multiple pictures of different hand gestures. One of you recognizes it to be a **fingerspelling alphabet**.





Envelope C, Sheet 1

The Opened Medical Box

Inside the medical box, there is a pulse oximeter and a timer. You attach the pulse oximeter gently to the finger of the humanoid.

The **oxygen saturation is 94%** and **heart rate 58 per minute**.

You also calculate **respiration rate**, which is

24 per minute.





Envelope C, Sheet 2

GCS Chart

At the bottom of the medical box there is a **Glasgow Coma Scale chart printed on a piece of paper**. You figure it might come handy at some point.

EYE OPENING	Rating	Score
Open before stimulus	Spontaneous	4
After spoken request	To sound	3
After finger tip stimulus	To pressure	2
No opening at any time, no interfering factor	None	1
Closed by local factor	Non testable	NT

VERBAL RESPONSE	Rating	Score
Correctly gives name, place, time	Orientated	5
Not oriented but communication coherently	Confused	4
Intelligible single words	Words	3
Only moans / groans	Sounds	2
No audible response, no interfering factor	None	1
Factor interfering with communication	Non testable	NT

BEST MOTOR RESPONSE	Rating	Score
Obey 2-part request	Obeys commands	6
Brings hand above clavicle to stimulus on head neck	Localising	5
Bends arm at elbow rapidly but features not predominantly abnormal	Normal flexion	4
Bends arm at elbow, features clearly predominantly abnormal	Abnormal flexion	3
Extends arm at elbow	Extension	2
No movement in arms / legs, no interfering factor	None	1
Paralysed or other limiting factor	Non testable	NT

Mild 13-15	Moderate 9-12	Severe 3-8
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Back of the Room

In the back of the room there is a box. Inside it you find an oxygen cylinder and a yellow ventura mask.

Before you can administer oxygen to the humanoid, you need to find out if there is enough oxygen in the cylinder.

The cylinder contains **10 liters of oxygen**, and the manometer shows **pressure of 24 bars**.

To deliver oxygen properly via the mask, the **flow rate** should be set to **8 LPM**.

How many minutes of oxygen there is left? There might be a formula somewhere.

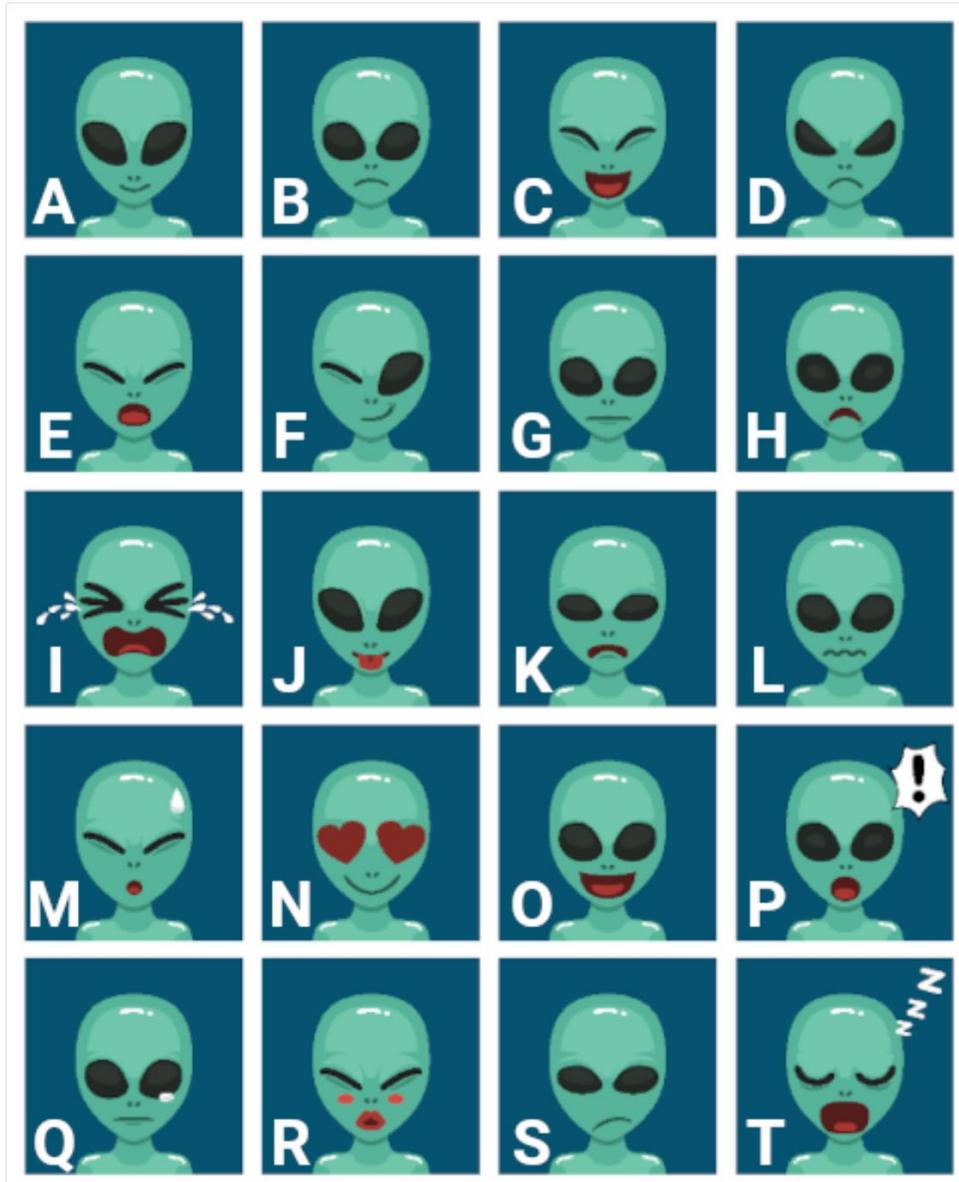


Answer



Bulletin Board

Pinned to a bulletin board on the wall, you find an interesting picture of different alien expressions. Each expression has different letter associated to it.





Envelope D, Sheet 2

Blood Pressure Meter

After administering oxygen, the pulse oximetry shows a reading of 97%.

You suppose the patient is feeling a little better now, since they look more relaxed. They aren't holding their backpack so tightly anymore.

Still, to be confident about their wellbeing, you want to continue with the assessment. You take out the blood pressure meter and thermometer you found earlier from the medical box.

To get them working, you need to enter the correct password. There is a riddle on the back.

I am red, but I'm not a strawberry.

I can be pumped, but I am not a bicycle tire.

I can be donated, but I am not money.

I contain cells, but I am not a jail.



Answer



Alarm

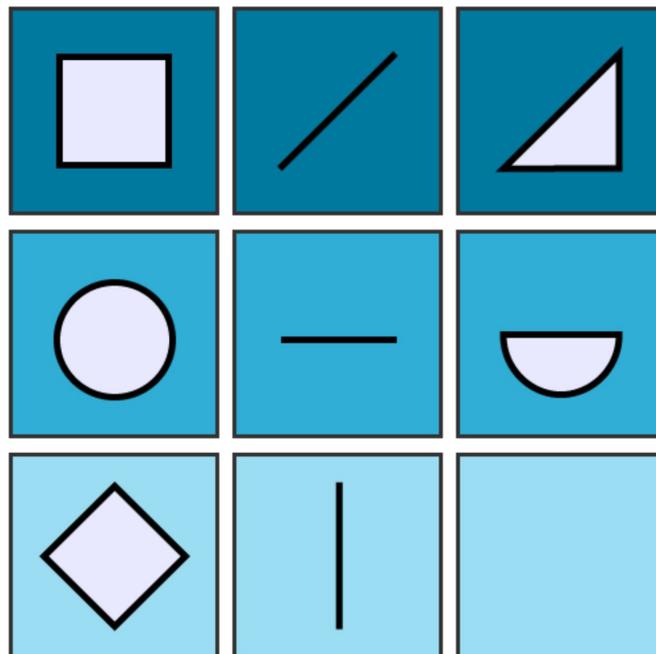
The navigating system sounds an alarm.

You hurry towards the Cockpit, leaving one person behind to tend to the patient.

As you arrive to the Cockpit's door, you see that the navigation system is requesting a new flight path angle.

Your colleagues on the other spaceship should be flying parallel to you. Maybe they could check their angle and help you find out how many degrees off you are from the intended flight path angle.

The expected input is one digit. But first you have to what symbol goes to the empty square.



Answer



Envelope E, Sheet 1

The Cockpit

The flight path is back on course, and you feel relieved.

The one who stayed behind with the patient radios you to tell you they have moved the patient to the Medical Bay. You Head to the Medical Bay.





Envelope E, Sheet 2

Vitals

The patient fell asleep while you were assessing their vitals. Is their condition getting worse? Do you need to hurry?

You collect all the data gained so far and the list of vitals look like this:

Respiration rate: **24 / min**

Oxygen saturation: **97 %**

Oxygen supplement used.

Heart rate: **58 / min**

Blood pressure: **110 / 70 mmHg**

Temperature: **38.5 degrees Celsius**

Disability: **Obeys commands.**

The expected input is a number.



Answer



Mysterious Camera Device

You have been examining the alien for a while now. It seems like you have gained their trust, because now they wearily point to an item in their back bag.

You take the item and see that it is some kind of very advanced camera. When you point it towards the alien, the device automatically takes a picture and then prints a set of 6 photos.

What do the images mean?

Answer

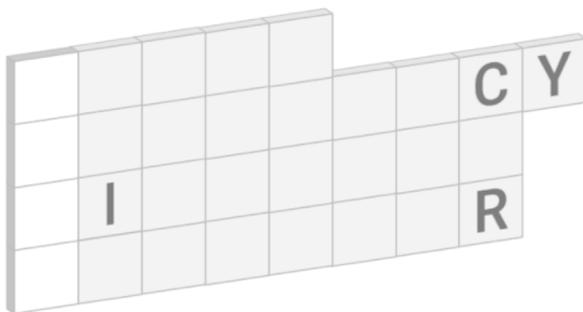
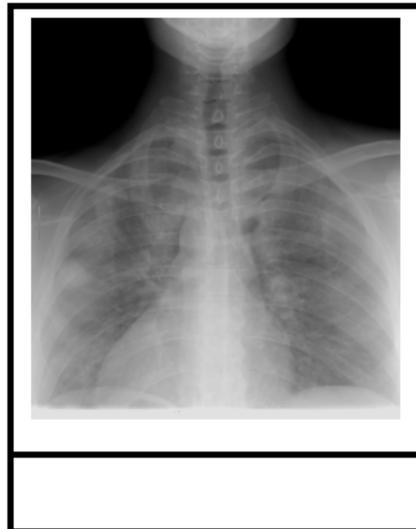


Familiar Sounds

The alien slowly opens their eyes and starts to cough immediately. Their breathing sounds rattling. Are they suffering from **pneumonia**? It sure would make sense!

When heading to one of the medicine cabinets, you try to remember what the unlock code was. You are almost certain it was a **4-letter word**.

On the background you hear familiar voices and sounds from Earth. It must be time for your favorite radio program! Strangely it makes it easier to remember the code. You turn the volume up.



Answer



Envelope G, Sheet 1

The End

You got the cabinet open and administered antimicrobial agent.

After some time, you can see that the treatment is working. They seem relieved and much better already.

The case is cracked, and you feel the tension lifting. You decide on shifts to watch over the patient until you reach Earth.

You head back to the cockpit to steer the spaceship. It is time to deliver those special moonstones and begin researching new drugs!





Envelope A, Sheet 1

TEAM 2

On board of spaceship Adventurer



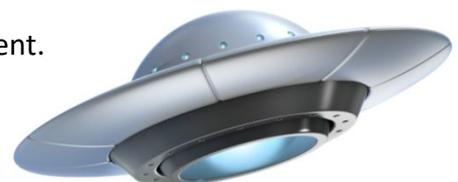
Your pleasant coffee break with your spaceship crew is interrupted by a sound of beeping alarm.

A message informs you that the security noticed a small space shuttle docking to your spaceship. Inside there was one humanoid. Something was wrong with the humanoid, so the security brought them to the Emergency Room.

You exchange quick glances with you colleagues before placing your coffee cups down.

As you hurry to the Emergency Room, you get a new message. Based on the humanoid's shuttle, she is identified to be a female from the planet Zarw.

You move quickly through the corridor to get to the Zarwian patient.



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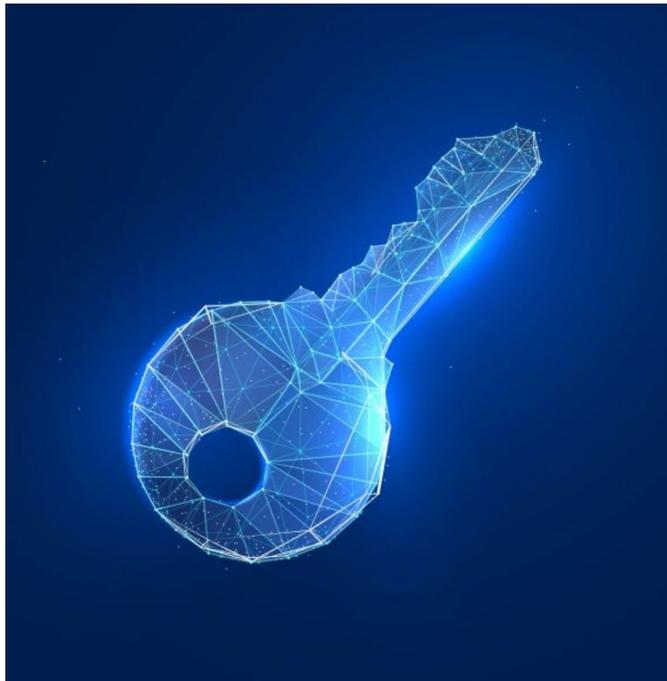


Envelope A, Sheet 2

Ledge

You walk past a ledge. There are some romantic novels lying about and a beautiful arrangement of flowers.

There is also someone's forgotten key. You take the key with you.





Envelope A, Sheet 3

A Poster on the Wall

As you are making your way to the Emergency Room, you see a poster hanging on the wall. It has some text and a picture of a galaxy.

Maybe it will come in handy later, for you or your colleagues in another ship.





Envelope A, Sheet 4

Locked Doors

Because of the earlier alarm, the door that stands between different sections of the spaceship is sealed shut.

An override code is needed to open it.

As you look more closely, you see a note has been attached next to the keypad. It has only one word on it.

ILLNESS

You type in 'ILLNESS', but it is incorrect and there are no other clues in sight.



Answer



Envelope B, Sheet 1

Door to the Emergency Room

You stand outside the Emergency Room. The door is locked, but luckily **the key you found unlocks the door**. Otherwise, you would have had to go back to your own locker to get one.

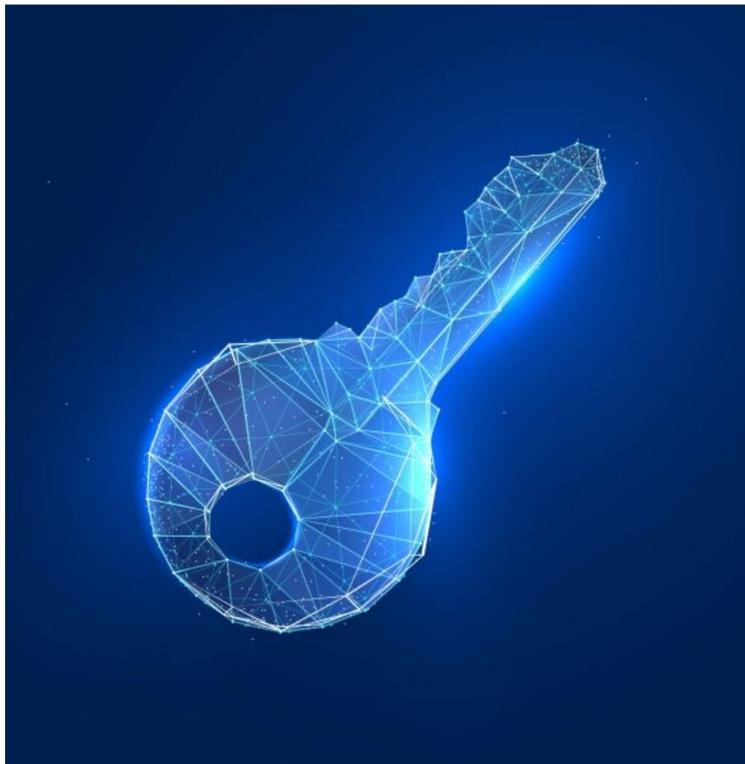
As the doors open, you are met with a short humanoid from the planet Zarw, two galaxies away from Earth.

She appears to be young, as you remember adult Zarwians being taller.

Unfortunately, none of you speak Zarwian, so you cannot easily communicate with the patient.

At least you have your MediApparatus-AI device. It can help you with diagnosing patients, by providing accurate calculations and diagnostics. When grabbing it in a hurry you drop it on the floor. Oh no! Hopefully, nothing happened to it.

You walk slowly towards her.





Envelope B, Sheet 2

The Patient's Outlook

As you approach the patient, you see that she appears sleepy and calm, and is breathing slowly. She is not saying anything.

She is wearing a fancy shirt, with a nameplate attached to it. As you take a closer look on the nameplate, you see pictures of hands doing various signs.

It would be useful to know her name, but what is it?



KUUROJEN LIITTO 

Answer



Folder with Pictures of Keys

There is a folder on top of a table. Inside you find a picture with an arrangement of keys.

Some of the keys are circled and have numbers on them.





Taking the Temperature

You try to take the temperature of the patient using your MediApparatus-AI, but it is as you feared: when the device fell it got damaged. Luckily, it is not completely broken and the Artificial Intelligence inside is still trying to help you.

It offers you **a riddle to answer**, so you can get the thermometer part fixed.

I am found in old thermometers,

I move up when I get hot,

I am also the smallest planet,

And so, Jupiter I am not.



Answer



Envelope C, Sheet 1

The Patient

The young patient looks weary and very tired. She has closed her eyes but opens them when you call her by her name and start examining her.

She seems disoriented, but is communicating coherently, although in her own language.

You offer your hand, and she takes it. You squeeze her hand, and she squeezes it back.

The MediApparatus-AI starts to blink **a map with a red pin** on it and awaits **an input of two digits**.



Answer



Envelope C, Sheet 2

Storage Room

The storage room is full of empty gas cylinders.

On the wall there is an instruction sheet on **calculating the amount of oxygen left in the gas cylinder.**

Calculating the amount of oxygen in an oxygen cylinder

$$\frac{\text{pressure (bar)} \cdot \text{cylinder size (l)}}{\text{flow rate } \left(\frac{\text{l}}{\text{min}}\right)} = \text{cylinder duration (min)}$$

Based on *Boyle's Law*: For a given mass, at constant temperature, the pressure times the volume is a constant.



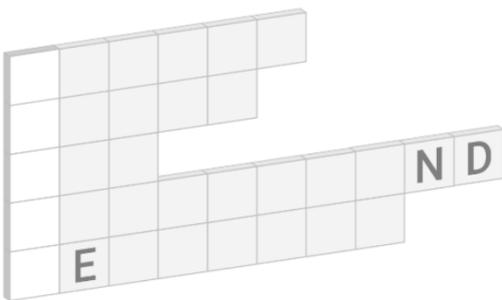


Poisoning

There is a drop in the patient's consciousness. She is laying still on the floor, mumbling some words that you do not understand. She struggles to keep her eyes open. She clutches her belly with her hands and has hiccups.

Her symptoms point to poisoning. But what kind of poisoning could it be?

Just then the MediApparatus-AI starts blinking and shows you a set of pictures. **It expects an input of 5 letters.**



Answer



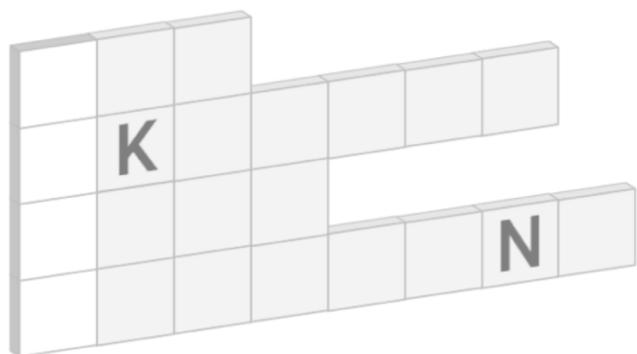
Antidote

She is suffering from an opium poisoning!

Some humanoids have a habit of tasting plants and flowers they find on other planets. So, she must have eaten some opium poppy flowers!

Luckily the MediApparatus-AI can dispense any antidote for you. You just need to understand what the MediApparatus-AI is saying.

Right now, it is offering you a **sound file to listen**, and waiting a **four-letter input**.



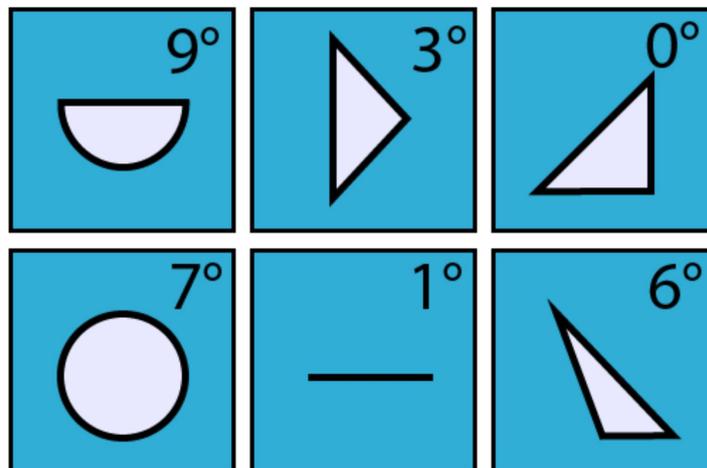
Answer



Window

You see your colleagues' spaceship through the window and wonder why their spaceship is steering off course. If they keep going that way for much longer, they will miss the next planet flyby and will not be able to slingshot towards Earth!

You check how many degrees off they are from your own flight path angle. Unfortunately, the system is malfunctioning and instead of a number, it gives you the answer in picture form.



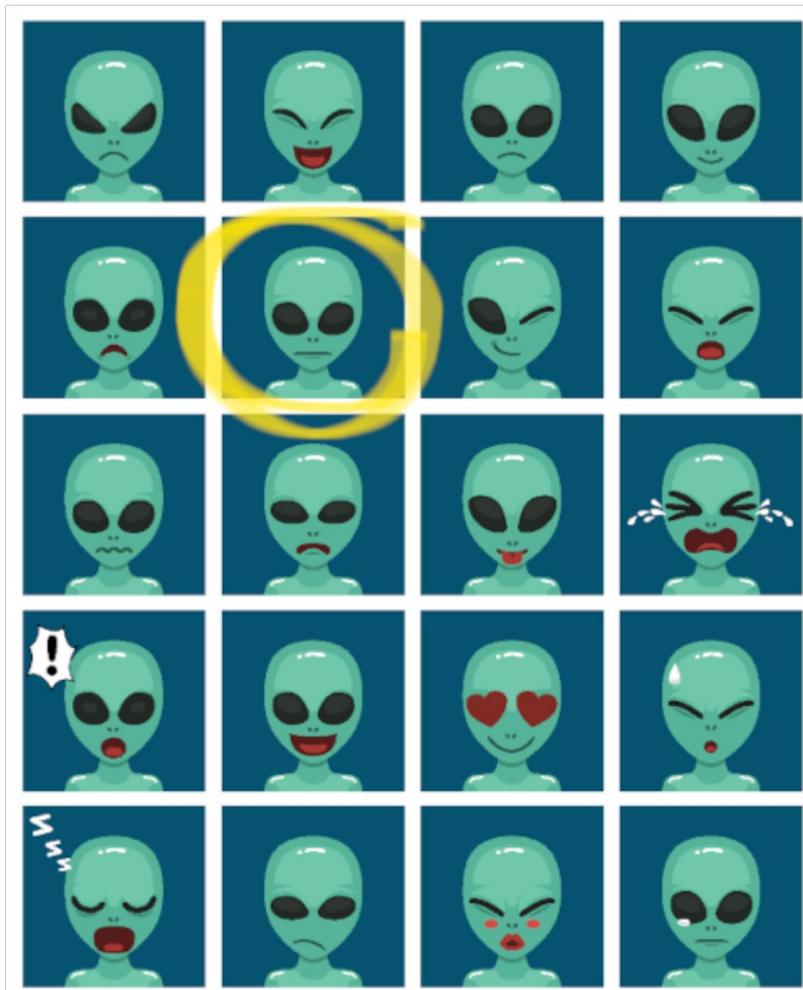


Facial Expressions

The medicine helped. But there is still something wrong with her.

The MediApparatus-AI is showing you different alien emotions. You circle the one that matches her expression.

Now you need to input a **corresponding letter** to the MediApparatus-AI. Too bad the letters are missing from the picture; it must be because of the damage to the device earlier.



Answer



Envelope E, Sheet 1

Door to the Recreational Bay

She is now cured of her opium poisoning, and judging by her anxious look, you feel like she would benefit from a more relaxed environment than the Medical Bay.

The Recreational Bay has many types of relaxing activities, like a Music Room and a Virtual Reality Station. You decide to bring her there, until she feels fine enough to go back to her own shuttle.

Walk with her to the Recreational Bay.





At the Recreational Bay

The young humanoid is still scared and sad. You are not sure how to help her further, especially since she is Zarwian. How do you console a Zarwian? **What could make a difference?**

MediApparatus-AI starts to blink again, and it shows you **a word puzzle**. You promise yourself that the first thing you do when you get back to Earth, is get the device fixed.



Answer



Envelope E, Sheet 3

The Galley

You go pick up coffee and cupcakes for the patient from the galley.

Someone has left a NEWS poster on the counter. You pick it up, roll it up, and decide to take it back to the Emergency Room next time you have business there.

National Early Warning Score (NEWS)

Physiological parameter	Score						
	3	2	1	0	1	2	3
Respiration rate (per minute)	≤8		9-11	12-20		21-24	≥25
SpO ₂ Scale (%)	≤91	92-93	94-95	≥96			
Air or oxygen?		Oxygen		Air			
Systolic blood pressure (mmHg)	≤90	91-100	101-110	111-219			≥220
Pulse (per minute)	≤40		41-50	51-90	91-110	111-130	≥131
Consciousness				A			V, P or U
Temperature (°C)	≤35.0		35.1-36.0	36.1-38.0	38.1-39.0	≥39.1	

NEW Score (Aggregate)	Clinical Risk
0	Low
1-4	
5-6	Medium
7 or more	High



Envelope F, Sheet 1

Music Room

You head to the spaceship's Music Room to listen to some relaxing music. While you walk, you think of how to use the hint, *family*, that the MediApparatus-AI gave you.

You contact the Zarwians parents. You don't know their language, but as they see their youngster on the screen, looking anxious, they seem to grasp what you wanted to tell them. Luckily, they happen to be nearby, and will reach your position in a matter of minutes.

You start to type down a clinical handover to be sent over to her home planet Zarw.



Identify
Situation
Background
Assessment
Recommendation

Patient has been treated in our medical unit and is now being discharged to home.

We suggest that patient has a follow-up with her own doctor if her condition changes.

No underlying medical conditions. Patient suffered from opium poisoning.

I am a member of medical crew from spaceship Adventurer – I am calling about patient Anix, young girl from planet Xarv.

Vitals are otherwise ok, but the level of consciousness was reduced. Glasgow Coma Scale was 13. Patient was given naloxone and is now feeling good.



Envelope G, Sheet 1

The End

Aniex's parents arrive, and they take her and her shuttle with them. Before they leave, they give you a note.

The note says that they are grateful for all your help. You solved what was wrong with her, and you gave her the right medicine that helped her immediately. And after the acute phase was over, you realized that Aniex needed her family to make everything better.

You high five each other on a job well done. Then you continue your coffee break, because in space you never know who needs help next.

