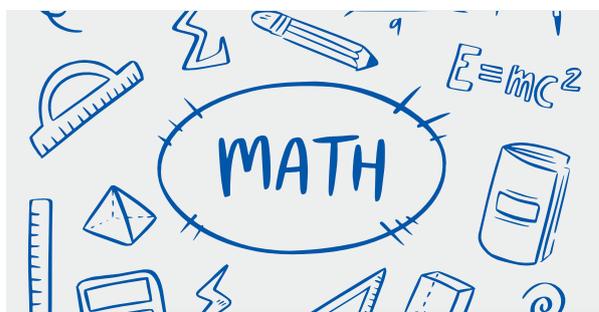




MATH TREASURE HUNT



Gimnazija
Zaječar



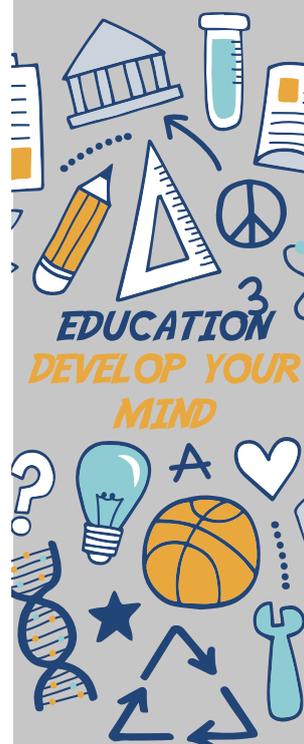
IV Levels

Solving Problems

Creating Problems

Multicultural Teams

PROJECT
FROM
GAME
TO STEM



With the support of the
Erasmus+ Programme
of the European Union

The part of the project related to math started on January 10th, with math intro test “Math is fun”, at the beginning of all activities. The test is designed for any age, the tasks are logical, test can be done by students regardless of the program that is done at school. The idea is to stimulate their logical thinking through various activities. They will do another test, at the end, so we will compare the results.

Average results of the test are 58/100 points. For me, interesting fact is that some of the tasks were difficult for all students, regardless of the country and age. Students were very creative for tasks which required designing a text for the given graph. Some of them were very imaginative and made a whole story. Of course, this whole pandemic situation leaves a strong impression, so one student gave explanation for the graph “covid cases per hour in a sample country” 😊

Here is the “Math intro test”:

1. How many different sums of dice numbers can we get by throwing 3 standard game dice at the same time?

Solution:

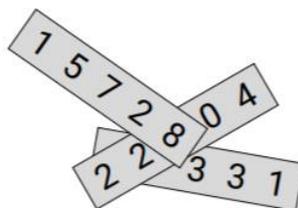
There are 6 different numbers of the dots (1,2,3,4,5,6). Minimal sum is 3 (1+1+1), maximum sum is 18 (6+6+6). There are 16 different sums from 3 to 18.

2. The weight of three kangaroos are three different natural numbers. Their total weight is 97kg. What is the max weight of the lightest kangaroo?

Solution:

The lightest kangaroo has to be 31kg, because only in that case, there are two kangaroos who are heavier, 33kg each.

3. Five digits are written on each of the three sheets of paper. The three digits are covered as in the picture. If the sum of all three numbers is written on papers 57263, which digits are covered?



Solution:

Mark covered digits as a,b,c. There are three numbers: 15728, 22a04 and bc331. Because the sum is 57263 it means that $15728+22a04+bc331=57263$. It means that $22a04+bc331=41535$. Because of that digit a=2, digit c=9 and digit b=1.

4. Four smart gorillas in the forests of Africa hold elections to elect a gorilla king. In the previous elections, a total of 8888 votes were given to four gorillas, and the winner outvoted his opponents by 888, 88 and 8 votes respectively. How many votes did the successful gorilla get?

Solution:

Mark gorillas as a , b , c and d . Because total votes are 8888, it is possible to write $a+b+c+d=8888$. Let gorilla a be the winner. He outvoted opponent b for 888 votes so $a=b+888$, he outvoted opponent c for 88 votes so $a=c+88$, he outvoted opponent d for 8 votes so $a=d+8$. It is possible to write $b=a-888$, $c=a-88$ and $d=a-8$. When we use first equation and change all variables it will be $a+(a-888)+(a-88)+(a-8)=8888$. When we solve the equation, $a=2468$.

5. In the crater of Mars, $\frac{3}{7}$ of women are married to $\frac{1}{2}$ men. What is the smallest number of Martians that can live in a crater?

Solution:

Let number of women be w and number of men m . It means that $\frac{3}{7}w = \frac{1}{2}m \rightarrow 6w = 7m$. Because w and m have to be whole number the smallest solution is $w=7$ and $m=6$. It means that number of Martians is 13.

6. Monica sets along the way carrying ten bottles of vinegar that are a quarter full. William carries five bottles of wine that are a quarter empty. How much more fluid does William carry?

Solution:

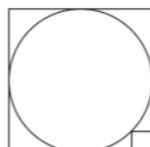
$M = 10 * \frac{1}{4} \text{ bottle} = \frac{10}{4} \text{ bottle}$ and because quarter empty means 3 quarters full, $W = 5 * \frac{3}{4} \text{ bottle} = \frac{15}{4} \text{ bottle}$. William carries $\frac{15}{4} - \frac{10}{4} = \frac{5}{4} = 1.25$.

7. Find the value of digits a and b if $\overline{ba^a} = \overline{176b}$, $a \neq b$, \overline{ba} is a two digit number, $\overline{176b}$ is four digit number.

Solution:

Digit a can't be 1 because solutions can't be a four digit number. If $a=2$ it is necessary to find two digit number to which the square is 176b. That is 42, and solution is $42^2 = 1764$.

8. The area of the bigger square at the picture is 32. What is the area of the small square?



Solution:

Mark side of the square as a . Area of the bigger square is $a^2 = 32 \rightarrow a = \sqrt{32}$. Diagonal of the bigger square is $d = a\sqrt{2} = \sqrt{32}\sqrt{2} = 8$. Notice that the diagonal is equal diameter of the circle plus 2 times diagonal of the small square. Because diameter of the circle is equal a , $d = a + 2d_s$. It means $8 = \sqrt{32} + 2d_s$. When we solve the equation, $d_s = 4 - 2\sqrt{2}$.

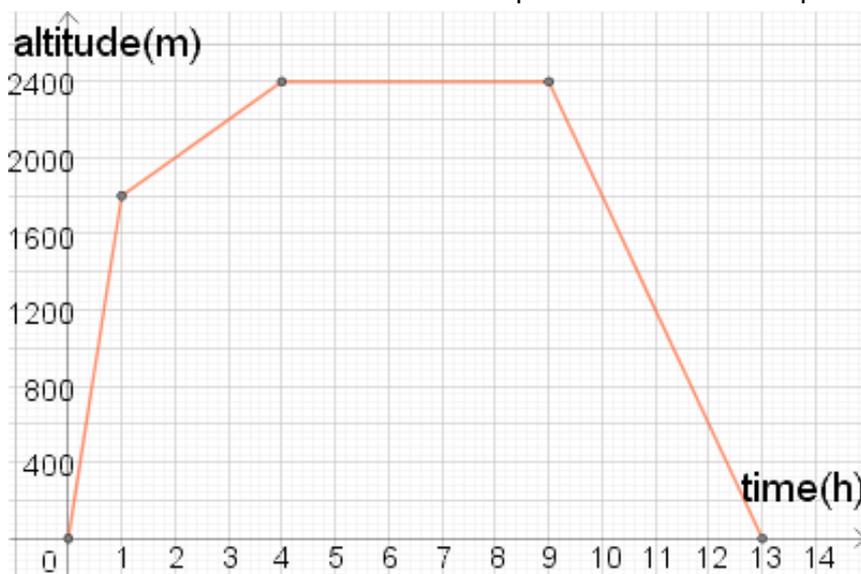
Area of the small square is $\frac{(4-2\sqrt{2})^2}{2} = 12 - 8\sqrt{2}$.

9. How many natural numbers $m, n > 1$ can be chosen that the number $\sqrt[m]{\sqrt[n]{2}^{12}}$ is rational.

Solution:

Use root properties and rewrite the number as $2^{\frac{12}{mn}}$. This number is rational if 12 is dividible by mn . It means that m and n can be (3,4), (4,3), (2,6), (6,2), (2,2), (2,3), (3,2). There are seven different pairs of numbers.

10. Please be creative and write a real-life problem which corresponds to the given graph:



Solution:

There are many possibilities that can represent this graph. It can be a flight of the helicopter, trail on a mountain hike, The trajectory of a rocket...

After this test, students are divided into the groups, according to the principle of one state one student. The students were given the task to make a meeting, get to know each other and choose the team leader of their team, as well as choose a team name. Team leaders got instructions what is the next step.

The first video meeting was, as expected, uncomfortable for most students. It is understandable that it is not easy to talk to unknown friends in another language. After 10 minutes of uncomfortable situation, things started to be normal.

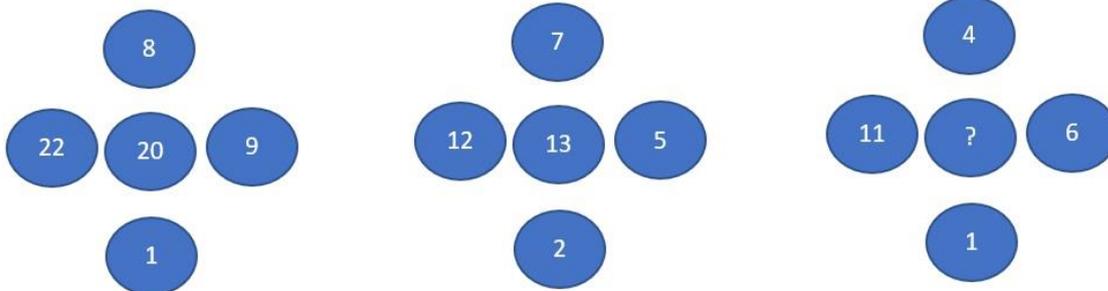
The “Treasure hunt” is math game where groups got tasks, when they solve the tasks, and if all answers are correct, they got next level of the game. The winner is the group that is the first to successfully complete all levels of tasks.

The main goal is to make students communicate with each other, practicing foreign language, get to know and accept differences, solve the tasks together, see how someone else thinks and accept and learn what they didn't know.

The first level was the easiest one, and that part was supposed to encourage students to collaborate and solve problems together. After that, tasks started to be a little more demanding. The final level was different. Students got solutions, and they had to create a problem form these solutions.

This is the task of the first level:

1. Find the missing number:



Solution:

Add all the numbers around the circle and divide it by 2. For the last picture $\frac{4+6+11+1}{2} = 11$.

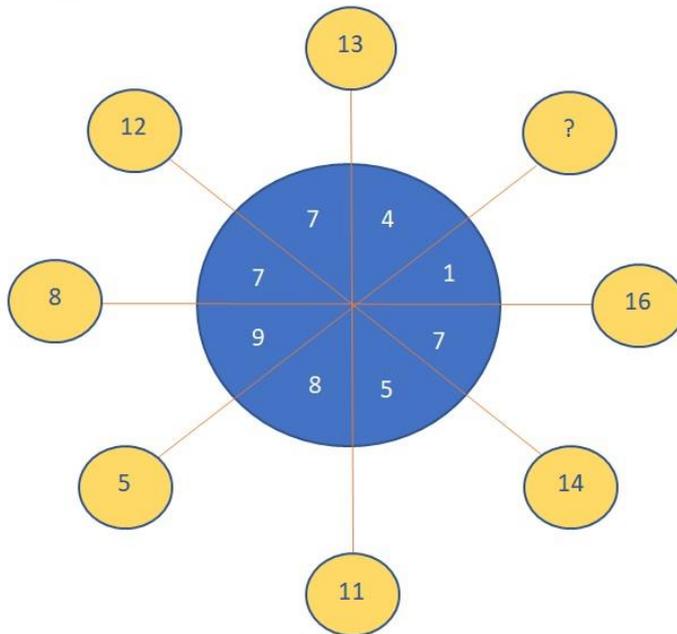
2. Find the missing number:

9	3	=	27126
7	5	=	35122
12	4	=	48168
20	3	=	?

Solution:

Pattern for the solutions is $9 * 3 = 27, 9 + 12 = 21, 9 - 3 = 6$. It means that for the last row $20 * 3 = 60, 20 + 3 = 23, 20 - 3 = 17$. So, the number is 602317.

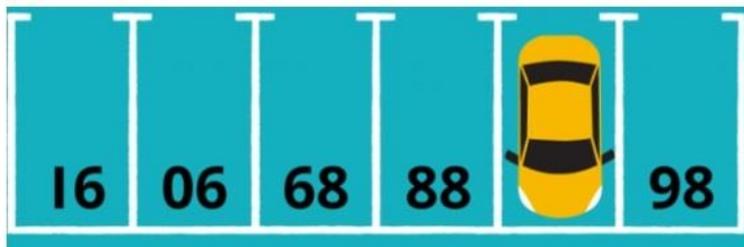
3. Find the missing number:



Solution:

The answer is 17, because that is the sum of 9 and 8, which are on the opposite side of the circle with the question line 17.

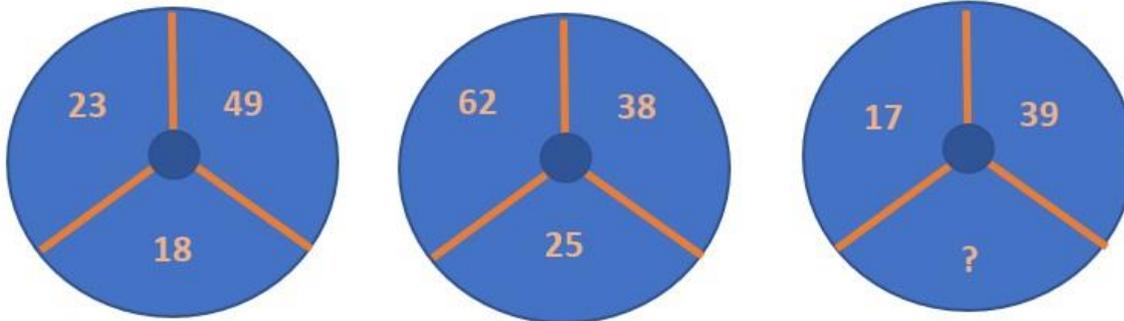
4. These are parking places. What number is under the yellow car?



Solution:

Rotate the pictures and the numbers are 86, 87, 88, 89, 90, 91.

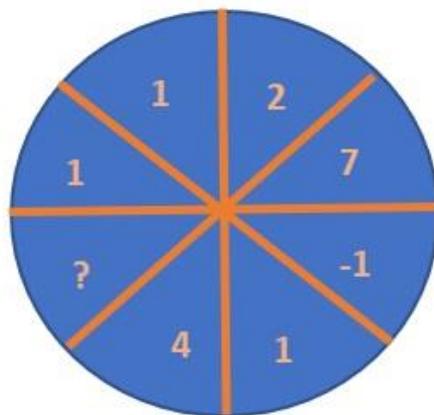
5. Find the missing number:



Solution:

The solution is 14, because you need to do 17 plus 39 and then divide it by 4.

6. Find the missing number:



Solution:

Each number on the left side is square of the numbers on the right side by diagonal. So, the result is $7^2 = 49$.



The tasks of the second level are:

1. What is the value of $\frac{1}{2}$ of $\frac{2}{3}$ of $\frac{3}{4}$ of $\frac{4}{5}$ of $\frac{5}{6}$ of $\frac{6}{7}$ of $\frac{7}{8}$ of $\frac{8}{9}$ of $\frac{9}{10}$ of 1000?

Solution:

$$\frac{1}{2} \cdot \frac{2}{3} \cdot \frac{3}{4} \cdot \frac{4}{5} \cdot \frac{5}{6} \cdot \frac{6}{7} \cdot \frac{7}{8} \cdot \frac{8}{9} \cdot \frac{9}{10} \cdot 1000 = 100$$

2. Mark and Bill are guys who are in love with Shannon. She is sitting on a bench in the park. Whoever reaches her first and start a conversation has a better chance. Bill is a better runner and ran three times faster than Mark. Shannon is located 200m east of Mark. Bill is north from Mark.

How far north is Bill from Mark, if they reach Shannon at the same time?

Solution:

Shanon, Mark and Bill create right triangle, with right angle at the Mark position. Because Bill is three times faster, and they reach at the same time, distance from Bill to Shanon is 600m. Use Pythagorean theorem: $x^2 = 600^2 - 200^2$, $x = 565.7$.

3. What is the sum of the first 100 digits of the number $\frac{6}{7}$?

Solution:

Notice that $\frac{6}{7} = 0.857142857142857142 \dots$ It means that digits 857142 repeat all the time. Because there are six digits repeated, it means that six digits will repeat 16 times and three digits more (zero is also digit). It means that the sum is $16(8 + 5 + 7 + 1 + 4 + 2) + 8 + 5 + 7 = 452$.

4. Four identical cubes are arranged next to each other in a row and a new 3D shape is obtained.

If the area of each cube is 20, what is the area of the newly formed shape?

Solution:

Because area of the cube is 20, it means that $6a^2 = 20$, $a^2 = \frac{10}{3}$. When we arrange four cubes next to each other, there are 18 sides of the new shape. Area of the shape is $18 * a^2 = 18 * \frac{10}{3} = 60$.

5. The daughter's dad buys the same number of roses as her age. Tomorrow is her birthday, after tomorrow the total of roses she has is 120. What birthday is she celebrating?

Solution:

For the first birthday, she got 1 rose, for the second birthday, she got 2 roses... It means that she got $1 + 2 + 3 + 4 + 5 + \dots + n$ roses. That is the sum of the first n natural numbers. Because of that $\frac{n(n+1)}{2} = 120$. Positive solution of the equation is 15, so the girl is 15 years old.

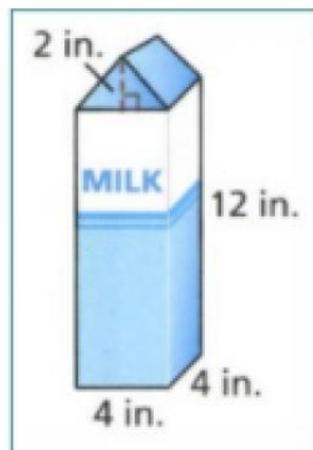
6. How many three-digit numbers are there with the property that the middle digit is the arithmetic mean of the other two numbers?

Solution:

If we write the number as \overline{abc} it means that $b = \frac{a+c}{2}$. We have to make combinations of the digits which one number is arithmetic mean of the other two. Because of the arithmetic mean, first and the last number have to be both even or both odd. For example $\{1,1,1\}, \{1,2,3\}, \{2,3,4\} \dots$ There are 45 numbers which satisfy this rule.

The tasks of the level III are:

1. Find the area of the milk bottle from the picture:



Solution:

Lower part of a bottle is four sided prism, which area is $4 * 4 * 12(\text{sides}) + 4 * 4(\text{bottom}) = 192 + 16 = 208$ square inches. Top part is also prism with the triangle base. There are two



triangle bases which area is $2 * \frac{4*2}{2} = 8$. Area of the two sides is $2 * 4 * s$. Use Pythagorean theorem to calculate that $s = \sqrt{8} = 2\sqrt{2}$. It means that area of the bottle is $208 + 8 + 8 * 2\sqrt{2} = 216 + 16\sqrt{2}$ square inches.

2. A skier trying to decide where to buy a season ski pass. A daily pass costs \$67. A season ski pass costs \$350. The skier would have to rent skis with either pass for \$25 per day. How many days would the skier have to go to skiing in order to make the season pass less expensive than daily passes?

Solution:

If the skier use daily services for n days he will spend $\$67 * n + \$25 * n$. If he use season ski pass, for n days he will spend $\$350 + \25 . Make an inequality depending of the task $\$67 * n + \$25 * n > \$350 + \25 . Solution is $n > 5.22$. Because n is the number of the days, the first possible value of n is 6.

3. The product of two consecutive positive odd integer (whole numbers) is 195. Find the integers.

Solution:

Mark integer positive odd number as x . Consecutive odd integer is $x+2$. It means that $x * (x + 2) = 195$. The numbers are 13 and 15.

The final level is:

Compose the tasks so that these are solutions to the task.

1. It is better to choose taxi company Sun then the taxi company Star, because company Sun is cheaper.
2. The best real life example is Golden Gate Bridge, with the minimum of the oval bracket in the point (0,5).
3. The price of the jacket increases by 20%, and after that it decreases by 6%.
4. Compose you own task about quadratic equations.

Tasks for the final level are different, some of them are creative, some of them are short but clear, some tasks are not correct for the given solution. The idea was to let students see how difficult is to create the tasks.

Here are the answers for the final level:

First task:

- In the town called Amigos there are 2 taxi companies - Sun and Star. Passengers that have used the services of the cheaper company have expressed dissatisfaction. They said the taxi is always late and takes longer than higher priced company's taxis to arrive to its



destination. Sun's vehicles take on average 1min and 28s to go from the school to the park (1.4km distance), Star's vehicles take on average 2min 32s to go from the factory to the school. Which company will you choose based on its price if you want faster travel?

- The businessman went to Serbia, for a business project. He will be there for 5 days, and every day he will need to drive from the hotel to the office, and from office to the hotel. He was pretty greedy and he wanted to spend the least amount of money for taxi rides. He got interested by 2 taxi companies' offers. The "Star" company was offering a promotion- every ride was 7\$ per kilometer, and every 5th ride was 5\$ per kilometer. The "Sun" company also had a promotion. Every ride was also 7\$ per km, but every 3rd ride was 6\$ per kilometer. Which company should the businessman choose, if the distance from hotel to the office is 1 km?
- Marla is going to see her best friend in an hour. They both live in New York but at different locations. She sees two taxis: "Star" and "Sun". The "Star company" is famous by its luxurious and fast travel, and its cost is 5\$ per kilometer. On the other hand, "Sun" company's price is 3\$ per kilometer and much safer. Which one is the best choice for Marla?
- There is one country called Wonderland. In that small country, there are only two taxi companies, Sun and Star. The company Star is cheaper than the company Sun, but it has many disadvantages. The Star is cheaper because it has only 10 vehicles, while Sun has 50 vehicles. If you call a Star taxi, you will have to wait a very long time, sometimes hours, to get your turn and pay \$ 5 less than with the Sun taxi. On the other hand, the Sun is coming as soon as possible. What do you think, which one would you choose?

Second task:

- In Amigos Dimension, up is down and down is up. The Sweetwater Bridge has the function $f(x) = x^2 + 3$. The Golden Bridge has the function $f(x) = x^2 + 5$. Choose the most curved bridge. Which one is the best real life example? Calculate its Amigos Dimension's minimum (Real life's maximum).
- The function shows the length of the oval bridge cable of the Golden Gate Bridge. Here is the formula of quadratic function: $f(x) = x^2 + 5$. The minimum of the oval bridge cable is in the point of intersection with the OY axis: $f(0) = y$. Tell me coordinates of this point.
- People of China want to build the largest bridge in the world with oval parabola based cables holding it, so they are conducting research on the biggest ones ever made. The most important thing for structuring this type of bridge is the lowest point of the cables holding it so during their research they collected data for every structure similar to the one they are planning to build, plus made their own sketches and they arranged it from the bridge with the lowest to the bridge with the highest cable point. Which already existing in real life structure is the first on their list?
- People from South America decided to develop the world's largest zip line with the oval parabola lines holding it. They had a special team of engineers constructing it and collecting the details of other structures with the same minimum parabola which is the most important thing for this type of sport. Name one construction similar to this example for the oval parabola.



- In Wonderland, there is Golden Gate Bridge. Find the minimum of the oval bridge cable if the function is $Y=X^2+5$.

Third task:

- A businessman buys a jacket in a factory. He increases its price to have benefits and later in the sales he decreases it. How much have been the increase and decrease of the price if the factory price is 50€ and he sold it for 56'40€?
- One Australian businessman was thinking about selling his golden jacket on an auction. He was dreaming about a huge amount of money but he was a little frivolous so he decided that he wants to sell it for 123 456 AUD. After a while he thought that it will be funny if he just increase the price to 148 147.2 AUD (he was also pretty greedy though). The next day he changed his mind because no one would ever buy his golden jacket for such a crazy amount of money. He decreased the price to 139 258.36 AUD. How was the price changing?(in percents)
- The original cost of the jacket was 3500 din. The next price was 4200 din, and because it was the black Friday it went down again to 3948 din. For what percentage was the second price higher than the first, and for what percentage was the third price lower than the second.
- John wanted to buy a jacket because he was preparing for winter holiday. When John found the jacket on Nike website, it cost 7,000. A day later, he went to a Nike store and saw that the same jacket, now, cost 8,400. He didn't have that much money and gave up. However, after a week, the jacket cost 7896 dinars and John bought it. What happened with the price of the jacket?

Fourth task:

- Here is the formula of quadratic function: $f(x)=-5/4x^2$. Which point belongs to the function? A(-2,5), B(-2,-5), C(0,5, -0,625).
- Well I thought about some number that is bigger than 0. I calculated its square, added to it this number multiplied by 3. Then I divided this result by this number, then multiplied it by 100, subtracted 300 and finally multiplied the result by this number. Actually I got 4900, so, can you tell me what number did I think about?

The most difficult were the tasks where they had to create their own task without given solution.

Also I have to notice that the students began to lose enthusiasm as the project drew to the end. It was interesting at the beginning, and then less and less... And of course the fact that all students are the same wherever they live :) When they got tasks and knew they had to solve them to get the next level, all groups worked hard. When they got the last level, I guess since they knew it was the last, everything slowed down ... I'm still waiting for the last level from some groups ☺

The winners of the Treasure hunt are members of the „Amigos“ group:

- Michał Ejzel – Poland
- Jovana Prvulovic – Serbia
- Plamena Penkova – Bulgaria
- Marta Cruz Rodriguez – Spain

At the end of the project students wrote their impressions about this part of the project and here they are:

Aleksandra Cibrowska:

As a team leader, I had so much work to do. I've always tried to help people with their tasks. Also, I was repeating all the time that if they have any problems, they can just let me know. I've tried to make them feel comfortable.

Sometimes, it was so hard to encourage people to do everything on time. I was pressured to be firm because it was necessary to finish all of the tasks.

I think I handled being a good leader, which can combine discipline with enjoyable work. In the end, everyone was really thankful and I've heard lots of nice words :)

Kinga Domanska:

I am satisfied with the project mostly because I can develop my language skills and talk to people. To tell the truth, the tasks are a bit hard for me and this is probably the worst but I don't give up. We had a few meetings. At first everyone was shyly but its better. We try to finish last level but we have a problem with coming up with tasks.

Michał Ejzel:

For me it was a wonderful experience. Our cooperation was excellent. It was the very first moment we really could walk to one another and learn about our interests. Now we know who

like math who not really . We hadn't got any problem with organizing meetings. We did it in the way that suited everyone. We had few video calls but most of the time we were just texting.

Paweł Barszczewski:



I belong to the "Dumplings" group. I think it was an interesting experience, some of the tasks were pretty complicated, but doing them with a team was really nice. I think it was a good occasion to integrate with each other. I think the hardest part was task when we had to compose a question for the answer, but we figured it out anyway. The rest of the tasks were easier. I really liked solving the questions together, we were really proud of ourselves when we solved all the questions :). So I think it was an interesting and nice experience.

Plamena Penkova:

First of all, I want to say that I enjoyed everything about this game, and for me, it was really useful to communicate with other students which I even don't know before this project. All of them were super kind and clever, so I think we don't have any big problems with the tasks. Their serious attitude about the game made me feel comfortable on this team. These are my impressions about my teammates. I hope they are enough. Once again I want to say that I'm so happy to be part of team "Amigos" and work with such great teammates.

Justyna Martecka:

I really enjoy working in my team, but I think that if the tasks includes more contact it would be better. Except that I do not have any complains.

Mar Checa:

Firstly, I am so excited to join this project and meet new people from other countries over the world. I like the sciences and meeting new people, learning about their cultures, their countries... I'm very thankful for the new people I'm meeting. They are very friendly and they help me with all my doubts. I am a very shy person and at first I was a little embarrassed. Now I have total confidence with all of them.

About the tasks, I'm the youngest girl in the group, so there are some problems that I don't understand. Of course I try it, but if I don't understand them I ask my partners and they answer my questions. When we have new tasks, we talk by the Instagram group or my Discord. We had a Turkish partner, but she has not contacted us yet. I don't know what happened with her.

I think that's all. I'm very proud of my group. I hope you will have a nice week in Spain.

Katarina Stefanović:

For me this is a really interesting experience because I get to meet new people from all over Europe. The tasks are fun and interesting, and a way for us to connect.

Katarina Jotović:

The best part of this project is of course getting to know people from other countries. There weren't any very hard moments at work, doing these tasks was fun and not too difficult. I really like the project and I think that the tasks are cool and fun and it's definitely awesome to meet people through project like this and I look forward to meet everyone and have an unforgettable experience.

I think that this project is so cool because we are meeting new people and we are communicating with them in English, and we are practicing it. The best part of this is, obviously, is make new friends of different parts of the world. In my opinion the hardest part is doing activities every week, but actually I like it.

Maripaz Torres Rus:

The experience that I am living is being one of the best that I have lived, the pandemic is a bit limiting but it is being very good within the limits of it. The most difficult part of the job have been some tasks in which you had to reason and think carefully, but I liked them because effort is the basis of a good job. On the other hand, the best part of the job has been being able to make contact with people from other countries for the first time, and in addition, in English it is like a dream come true.

Marta Cruze:

The hardest part was to organize time to do the tasks, and lots of exams and final assignments from school. Some of the problems were very difficult. Also, we are only four active members in my group, we know nothing about the Turkish girl and we are less than in other teams.

This experience it's very interesting for me because I like meeting new people and learning about other cultures. The best part for me was meeting my team partners for the first time and talking English together.

I have loved this experience and I'm very proud of my team.



Andrej Lindner:

It was awesome, we talked nicely and it was good. The most interesting experience was to introduce people to a different culture, and then introduce you to a new culture as well... Of course, the hard part is that people were less interested, but we can't complain it's important that we went through that and that we spent some time and had fun... Cool then, I hope we'll meet sometime in our lives, and I hope Corona will end soon. Special thanks for Milica, one of our team leader, she really gave her maximum, I'm really glad that she is a part of our team! See you soon :))



Jovana Prvulović:

I am writing to you to express my positive opinion on the work of my group during these weeks. The tasks were very interesting and we had a lot of fun while solving them. I am happy that my team consists of students who are very communicative and hardworking. The leader of the group always told us in time what our obligations were, and we were all there to help each other and come to a common solution. I think we started pretty well. I am glad that each member of the team had an understanding for the other members of the group. In that way, we managed to do everything together, despite different obligations. We were all equally interested and effective. I hope it will stay that way until the end of this project. Above all, I am glad to have met new people and to have had the opportunity to hear something about their countries.

Thanks for this opportunity, sincerely



Milica Jovanovic:

The maths problems were very interesting and logical, and I liked them so much :) For level 2 we had solved our tasks together and it was so fun. Everybody did something. But, unfortunately, it happened just once. Members of my team don't have so much time for this project and we rarely communicate and I am so sad about that. I am really sorry because I have to say that, but I have tried to cheer up and organise them and it wasn't so easy.

Marta Kosowska:

I liked the first level of the quests the most, because they were interesting puzzles. The hardest part for me was contacting with the members of the group. Even though I don't like math, this part was pretty cool. Unfortunately, I had the impression that only me and possibly one or two people were involved in the work, I am a bit sorry for that.

Boho Earrings:

These are some of the opinions my mates had.

This experience is interesting because we learn more, we have meetings to solve the activities and it is fun. The best part of the job is that we all get together and work. And the most difficult has been to solve some problems. This part of our project was so fun, we met new friends, learned something new about them and their school system. We saw each other while we were having a meeting and talking about tasks that had been given to us. I'm really glad I met some amazing people.

My opinion:

From my point of view this experience was amazing, it's a pity that we can't travel but I had an amazing time. Sometimes tasks were a bit difficult but with my teammates everything was easier.



Wojtek Jurgielewicz:

To be honest, cooperation was really entertaining and there was a lot of fun while solving tasks and speaking to each other - especially because this was 100% Slavic group (Unfortunately girl from Spain left the project and our group:() and we could make fun of many similarities in our languages or cultures. There were also several funny moments during solving the tasks - f.e when I was trying explain the simple solution to the task with area of 3D object made of cubes and rest of my team wasn't getting it. Strahinja made a livestream on Discord to show his completely different and complicated way of thinking on Paint and rubik's cubes. The rest of the team was analyzing it very hardly and after about 30 minutes I tried to explain them the solution once again - I repeated it 3 times and they got it and they were like "Aaah, oh man we are dumb" - this situation gave us a lot of laughter. Organizing team wasn't that hard and isn't now neither - we are just planning together meeting date and hour and that's it.

Ana Milanović:

I am glad that I participate in this project because I got a chance to meet new people and giant new friendships, practice to speak better English, learn about new countries and their culture. The best part was meeting and talking with girls from group. They are very friendly and I am in contact with some of them. We text each other almost every day. I am happy because I found new friends from different places in world. The hardest part for me and for others from group was level 3. We did our best, but we did not solve all tasks. I hope it will be easier in next levels.

Danica Vasiljevic:

This experience was very interesting, I really enjoyed having meetings with my teammates from other countries. I got to know some of their culture, countries, their interests, hobbies, and I'm glad that I had the opportunity to work with them. The best part of this project was meeting my teammates through video call where we got to talk about ourselves, I even learned some foreign words! There weren't many hard parts, but if I had to choose, the hardest part was actually organizing meetings. We had to organize by everyone's spare time and that was a bit hard because everyone already has their plans that they need to finish. Overall, I'm glad that I took a part in this project.:)

At the end of the treasure hunt, I think that we succeeded! Of course, that we can't expect that 100 students enjoy 100%, but I think that most of active students had a nice time!

Dragana Sekulic Pilipovic

Math teacher