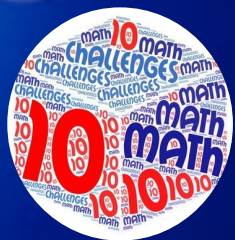




10 Math Challenges

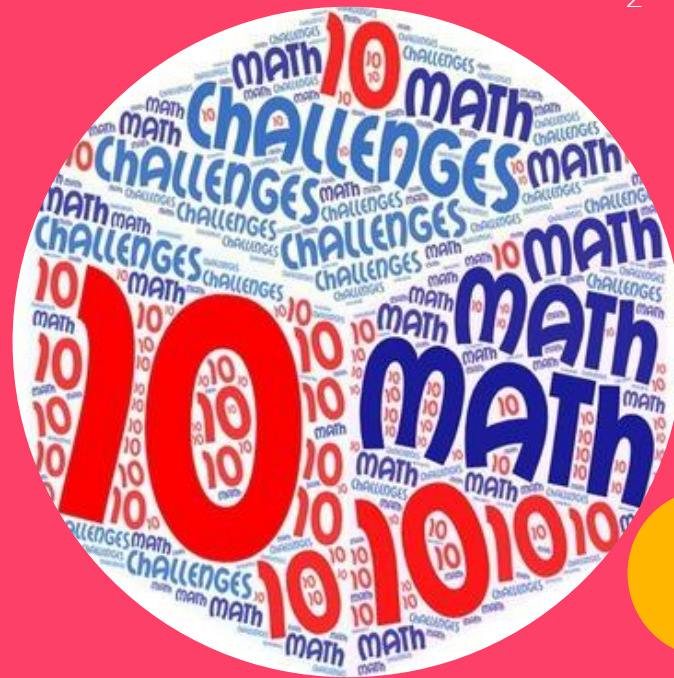
eTwinning project
2020/2021



$$P(X=k) = \binom{n}{k} p^k (1-p)^{n-k}$$

FINAL

Divulgação do Projeto



Registo de projeto eTwinning

Certifica-se que

ANA FRANCISCO

Agrupamento de Escolas de Pombal, Portugal

se juntou ao projeto

10 MATH CHALLENGES

31.07.2020

Professores por país envolvidos no projeto

BÓSNIA-HERZEGOVINA (3), ESLOVÁQUIA (1),

POLÓNIA (2), PORTUGAL (2),

REPÚBLICA CHECA (1), SÉRVIA (1),

TURQUIA (9)



José Vitor Pedroso
Apoio Nacional
Portugal

Porquê um projeto de matemática?

Idioma

Matemática como linguagem universal

Uso

Usamos matemática no nosso dia-a-dia

Interesse

A Matemática pode ser interessante e divertida

Neste projeto queríamos "fazer amigos" entre alunos e matemática

Queríamos mostrar que matemática não é uma ciência aborrecida, cheia de números e personagens misteriosos, mas que a matemática também é divertida e não a encontramos apenas na escola mas também no dia-a-dia.

Objetivos do projeto

1. Popularizar a matemática como uma importante ferramenta científica
2. Aumentar o interesse dos alunos dos 15 aos 19 anos pela matemática
3. Diminuir os preconceitos existentes sobre a matemática
4. Integrar a utilização das TIC no estudo e auto-estudo do aluno
5. Desenvolver a criatividade e o pensamento matemático
6. Promover a utilização das TIC de forma significativa
7. Melhorar as capacidades de comunicação numa língua estrangeira
8. Incentivar a cooperação em grupos
9. Alargar as competências dos alunos utilizando ferramentas web 2.0
10. Concentrar a atenção dos estudantes na segurança e direitos de autor ao trabalhar com a Internet e com os recursos

No
linha de início
foram

10 países

Bósnia e Herzegovina

Croácia

Républica Checa

Grécia

Polónia

Portugal

Romania

Sérvia

Eslováquia

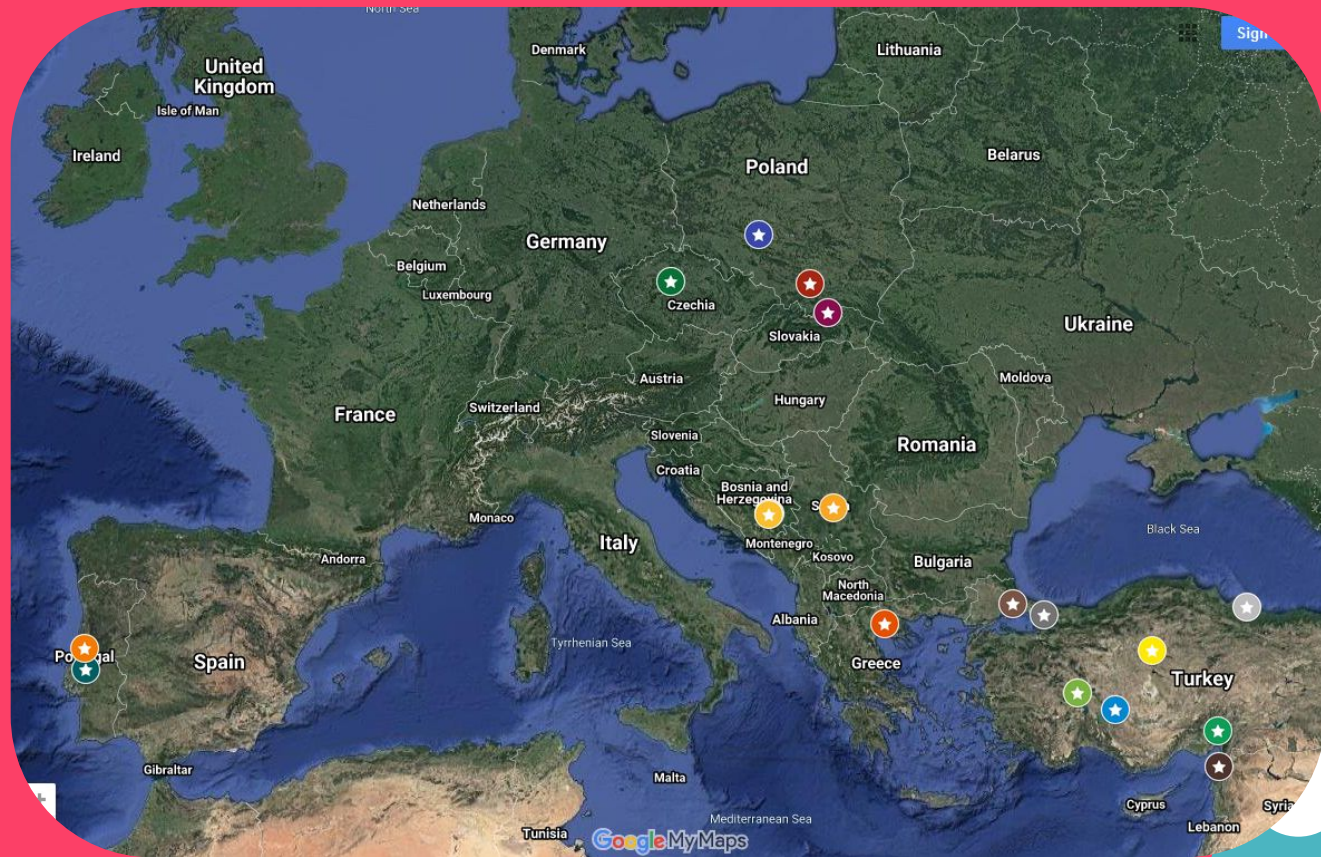
Turquia

23 escola

23
professores

141
estudantes

Parceiros do Projeto- localização



Our first steps

ICEBREAKER

- ☁ Input word cloud
- 📊 Project PRE-TEST

PARTNERS

- 🌐 Location of Partners
- 🏫 About schools
- 👩 About teachers
- 👨 About students

About schools

About students

Partners in the project - students:

Al-Jaka
Hi, my name is Al-Jaka and I'm 15 years old. I'm studying at the business academy in the second class. This

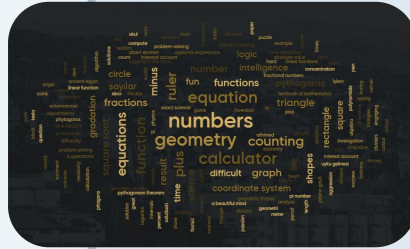
Kamil Poland
Hi, my name is Kamil. I'm 15 years old. I'm studying at the business academy in the second class. This

Julia, Slovakia
Hello my name is Julia and I'm 15 years old. I'm studying at the business academy in the second class. This

About teachers

ABOUT PROJECT

- 📄 Logo
- 👉 Introduction
- 📅 Schedule
- © Netiquette, copyright, e-security



Agnieszka + 16 · 1d

10 math challenges
Netiquette, e-security and copyright are a key part of the project 10 math challenges.

Agnieszka tek

Portugal, Ana Francisco

Serbia, Jasmina Miod

Netiquette, e-security and copyright

We talked about Netiquette, copyright, e-security and made a poster.

Netiquette

1. Do not use your own personal data (Name, address, mobile phone...)

2. Do not provide personal data (Name, address, mobile phone...)

3. Do not use your own personal data (Name, address, mobile phone...)

4. Do not use your own personal data (Name, address, mobile phone...)

Dan siguramjig into

PROJECT PLAN

- [DRAFT] 📄 Actual information
- ☑ September task
- 🌸 October tasks
- 🍂 November tasks
- 🎄 December tasks
- ❄ February tasks
- 🌸 March tasks
- 🦋 April tasks
- ⚙ May tasks
- [DRAFT] 📄 Tasks to complete the project

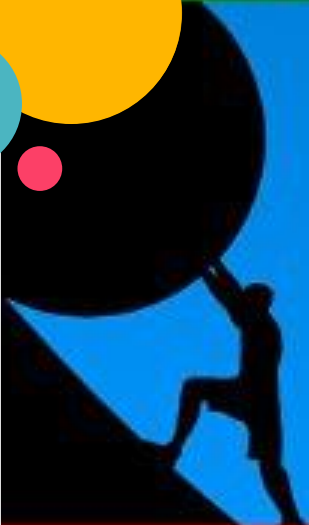
Schedule PROPOSAL#2

Task	September	October	November	December	January	February	March	April	May
Task 1									
Task 2									
Task 3									
Task 4									
Task 5									
Task 6									
Task 7									
Task 8									
Task 9									
Task 10									
Task 11									
Task 12									
Task 13									
Task 14									
Task 15									
Task 16									
Task 17									
Task 18									
Task 19									
Task 20									

PROTECT YOUR PERSONAL INFORMATION

In eTwinning Projects

LOGIN DETAILS
Protect your login details!
Ask for teacher for a strong password



Começámos
a resolver os desafios
matemáticos em
setembro de 2020

TWINNING

10 MATH CHALLENGES

20

DESIGN WORKS HAVE STARTED



Um matemático que mudou o mundo

Desafio 1

Tarefas


Estudantes **procuraram um matemático** cujo nome começa com a mesma letra do nome do aluno. Depois, **partilharam com outros alunos uma informação importante ou interessante** relacionada com o matemático.

Forma de trabalho dos alunos

Os estudantes trabalham **individualmente**

Web 2.0 ferramentas

Os estudantes trabalharam com as aplicações **Canva / PosterMyWall**. Com todos os cartazes, criaram a coleção comum **Wakelet**.



the foundations of the
theory of electricity.



sk.Sima

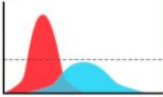
sk.Sima · Oct 20, 2020

CARL FRIEDRICH GAUSS

Was a German mathematician
and physicist.



Foto: Public domain,
wikimedia Commons



When he was seven
years old, he confidently
solved an arithmetic
series problem.

$$S_n = \frac{n(a_1 + a_n)}{2}$$

Amina Dzihanic, Srednja e... · Oct 22, 2020

KAROL REČIČÁR

HE WAS BORN ON SEPTEMBER 26, 1909 IN KROMPACHY. AFTER GRADUATING FROM THE GRAMMAR SCHOOL IN SPIŠSKÁ NOVÁ VEŠ, HE STUDIED MATHEMATICS AND DESCRIPTIVE GEOMETRY AT THE FACULTY OF SCIENCE OF CHARLES UNIVERSITY, WHERE HE GRADUATED IN 1932.

HE WORKED IN THE PEDAGOGICAL AND SCIENTIFIC FIELD, PROMOTED MODERNIZATION EFFORTS IN THE TEACHING OF MATHEMATICS AND DESCRIPTIVE GEOMETRY, AND WAS REGULARLY THE PEDAGOGICAL LEADER OF THE YEARS. IN THE BEGINNING, HE HELPED TO BUILD THE DEPARTMENT MATERIALLY AND PERSONNEL. HE COMPILED COMPREHENSIVE TEACHING TEXTS FOR STUDENTS. HE HAS BUILT A COLLECTION OF TEACHING AIDS FOR DESCRIPTIVE GEOMETRY. HE IS THE AUTHOR OF SEVERAL SCRIPTS IN DESCRIPTIVE GEOMETRY.

sk Rene

**PYTHAGORAS
GREEK**

Emmy Noetherová
Albert Einstein called her the most important woman in the history of mathematics.

FOTO: WIKIPEDIA COMMONS

sk.Nina · Oct 16, 2020

Ondrej

was British
mathematician, logician,
cryptographer and war
hero



sk Timea

sk Timea · Oct 16, 2020

LEV BUKOVSKÝ

$$A = \{1, 2, 3, 4, 5, 6, 7\}$$

$$B = \{2, 4, 6, 8, 10, 12\}$$

$$A \cap B = \{2, 4, 6\}$$

$$A \cup B = \{1, 2, 3, 4, 5, 6, 7, 8, 10, 12\}$$

$$A - B = \{1, 3, 5, 7\}$$

$$B - A = \{8, 10, 12\}$$

is a Slovak mathematician who
deals mainly with set theory

EUREKA!

Desafio 2

Tarefas

Os estudantes **resolveram 6 problemas** lógicos.
Partilharam **com outros alunos as suas soluções** e **discutiram** os resultados uns com os outros.

Forma dos alunos trabalharem

Os alunos trabalharam **individualmente**

Web 2.0 ferramentas

Os alunos trabalharam com a aplicação **Padlet**.
Os estudantes criaram a **coleção padlet** comum a partir de todas as contribuições.

özlem kahraman + 50 · 11 dníami


Eureka!

Intelligence Questions

Six Pieces

Pridať komentár

sk.sima & sk.emanuella
we think that will be the case



♥ 5

2 comments

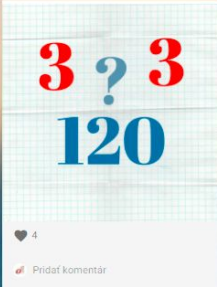
Monika Pofanska 3 mesiacmi
Great, girls 🎉

özlem kahraman 3 mesiacmi
Congratulations

Pridať komentár

ananka

Two Three



♥ 4

Pridať komentár

Rabia/TURKEY

Two=2,Three=3 and (2+3)!=120

♥ 7

Počet komentárov 1

mehmeturam38 1 mesiacom
nice

Pridať komentár

skVanesa

My example - $360 : 3 = 120$

♥ 5

Pawns

Počet komentárov 1

özlem kahraman 3 mesiacmi
Congratulations!

Pridať komentár

sk.sima & sk.emanella

we reached the finish line in 7 steps and there was no pawn left on the table

♥ 3


Pridať komentár

sk.marianka

- At my first step I take two black pawns and I will put white pawn.
- Next I will take one white and one black pawn and I will put two black pawns on the table.
- In the third step I take from the table two white pawns and I will not put any pawns.
- If I take two black pawns I will put white pawn on the table.
- In next step I take one black and one white pawn again and I will put on the table two black pawns.

Homecoming

hour and continues with his car to the rest of the road. One day, Mr. X arrives at the station 1 hour early and starts walking because his driver has not arrived yet. When he meets his driver on the way, he gets into the car, and reaches home 10 minutes earlier than usual. So how many minutes did Mr X walk?



♥ 6

4 comments

Anonymný 4 mesiacmi
Gül Turkey The car does not travel the road from the meeting points to the station. That's why he gets home 10 minutes early - this road is 5 minutes by car and 55 minutes for X. So X may have walked for 55 minutes.

Anonymný 3 mesiacmi
Beren C./TURKEY I agree with you Gül

özlem kahraman 3 mesiacmi

Subway

Počet komentárov 1

halikayalar38 1 mesiacom
good

Pridať komentár

cz.Jakub

Since the start and end moments include the number of encountered trains goes down to 20. Then we just simply divide the amount of minutes by the number of trains.

$$120 : 20 = x$$

$$x = 6$$

So trains go by the stations every 6 minutes.

♥ 4

Počet komentárov 1

halikayalar38 3 mesiacmi
nice


Pridať komentár

sk.daniela, sk.slavka, sk.helenka

$$120:20=6 \text{ minutes}$$

Community

How would you divide a community of 10 people into two subgroups of at least one person each?



♥ 4

2 comments

Patrik Havik 3 mesiacmi
I would divide them according to their age. Kids with kids and adults with adults.

evrimyelda 1 mesiacom
I thought that

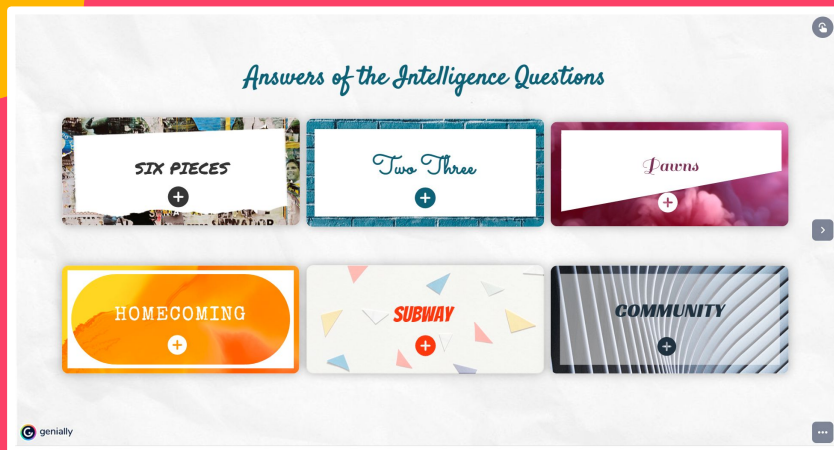
Pridať komentár

skMaruska

I would divide them - according to the mood (who is in a good mood and who is in a bad mood)

♥ 5

Pridať komentár



Resolução de tarefas



e-Book com todas as respostas dos alunos

Links: Solving tasks, e-Book with all student answers



Geometria na minha cidade

16

Desafio 3

Tarefas

Os estudantes **procuraram geometria nas suas cidades** e em fotos das cidades dos seus parceiros. Conheceram **elementos geométricos na arquitetura** e a sua influência na percepção dos edifícios urbanos em diferentes países.

Forma de trabalhar dos estudantes

Os estudantes trabalharam em **15 grupos internacionais**

Web 2.0 ferramentas

Os alunos comunicaram no **TwinSpace Fórum**. Com todas as fotos editadas, criaram a coleção comum **padlet**.

← → ↻ 🏠 <https://padlet.com/acfrancisco76/8780ivu84s6v663m> 🗑️ 🔍 ⚙️ ⌂ Não está a sincronizar

The Padlet board contains the following items:

- anónimo** 6mo: Piot G.PL. Includes a photo of a building and a note: "This photo is not symmetrical".
- Jakub Lelović** 6mo: Mesquita De Nur. Jakub CZ. Includes a photo of a mosque with red annotations.
- anónimo** 6mo: cz Julca. Includes a photo of a building with red annotations.
- Romão Zavêl** 6mo: Mesquita Nur Kirkkale. cz Roman. Includes a photo of a mosque interior with red annotations.
- anónimo** 6mo: cz Andrii. Includes a photo of a church tower with blue annotations.
- anónimo** 6mo: cz Michaela. Includes a photo of a building with blue annotations.
- anónimo** 6mo: Kerem B./Turquia (Kirkkale). Cadeia Pombal-Portugal. Includes a photo of a building with blue annotations.
- Imelda ibendji** 6mo: imelda.cz. Includes a photo of a building with blue annotations.
- anónimo** 6mo: Filipe/Agrupamento de Escolas de Pombal/Pombal. Grupo3. Nur Mosque/Turquia. Includes a photo of a mosque dome with blue annotations.
- anónimo** 6mo: Beto/Agrupamento de Escolas de Pombal/Portugal. Grupo 2. Nur Mosque/Turquia. Includes a photo of a mosque with blue annotations.
- anónimo** 6mo: GÜ/TURKEY(Kirkkale) Vysoká pec JAKUBANY. Includes a photo of a stone structure.
- anónimo** 6mo: cz Stepanka. Includes a photo of a building with blue annotations.
- anónimo** 6mo: Oleksandr Aleksandrov 6mo: Alex Cz. Includes a photo of a building with blue annotations.

Desafio 4

Tarefas

Encontre o caminho

Os estudantes criaram um **e-book com labirintos**. Em cada labirinto está escondida uma declaração/invenção/criação matemática de um matemático famoso.

Forma de trabalhar dos estudantes

Os estudantes trabalharam **em 19 equipas nacionais**

Web 2.0 ferramentas

Os estudantes comunicaram no **TwinSpace Fórum**; criaram os labirintos no **Google Slides**.

O professor autor do desafio criou um e-book com todos os labirintos no **StoryJumper**.



Team #2
akSamuel

Team #2
ak. emanuela

BEGINNING

END

Link: [the BIG e-book of mazes](#)



Números primos - blocos de construção da matemática

20

Desafio 5

Tarefas

Os alunos criaram **apresentações sobre os números primos** e o seu significado no dia-a-dia. Criaram uma **coleção comum no Wakelet** a partir das apresentações preparadas. As curiosidades que encontraram durante o estudo dos números primos foram publicadas numa **coleção comum no Padlet**.

Forma de trabalhar dos estudantes

Os alunos trabalharam em **19 equipas nacionais**

Web 2.0 ferramentas

Os alunos trabalharam com o **G-Suite Slides/Prezi/Canva**; criaram no **Wakelet** e no **Padlet** coleções comuns.



Prime numbers – building blocks of mathematics

16 items · 820 views

Challenge no. 5 in eTwinning project 10 math challenges, 2020/2021



Challenge 5 - team 3

Google Docs

Prime numbers Team 3 Roman, Kačka, Michal, Grigorii, Michaela

Added by:
Roman Zaviel · Dec 18, 2020



Challenge 5 - team 4

Google Docs

Prime numbers Team 4 - Slovakia Members: sk.Nina, sk.Renatka, sk.Sima, sk.Marianka, sk.Filip

Added by:
sk.marianka · Jan 24, 2021



TEAMS/PRIME NUMBERS ÜNYE SCIENCE HIGH SCHOOL /TURKEY

Google Docs

Added by:
TEAMS · Jan 4, 2021



Challenge 5 - team 6

Google Docs

Prime numbers TEAM 6 sk.Helenka, sk.Saška, sk.Ivka, sk.Bianka, sk.Daniela


Gabriela Svobodová + 52 · 12 minütleri

Remarkable prime numbers (curiosities)

Challenge no. 5 in eTwinning project 10 math challenges, 2020/2021

SLOVAKIA (Monika)

calculate this number. It took his computer a record 6 days.



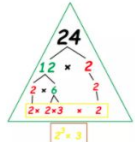
❤️ 3

Přidat komentář

Anonymný 2 mesiace

skMaruska

We use a **tree diagram** or **factor tree** to find the prime factors



❤️ 7


Přidat komentář

CZECHIA (Gabi)

Jakub Letović 2 mesiace

Jakub/CZ

The only even prime number is number 2.



❤️ 6

Přidat komentář

Patrik Havik 3 mesiace

Patrik/CZ

No prime number greater than 5 ends in a 5. Any number greater than 5 that ends in a 5 can be divided by 5.

❤️ 3

Přidat komentář

Anonymný 2 mesiace

Misa/CZ

A prime number is a natural number. They are

POLAND (Agnieszka)

Agnieszka 2 mesiace

proste číslo

In Polish, in English, we name prime numbers as if they were at the beginning. This can be confusing for students who are constantly trying to make one into a prime. -) In Russian, we call prime numbers простое число, which means straight numbers, which perhaps better reflects the essence of these numbers. How is it in your languages? What do you think about it?

❤️ 12

Přidat komentář

Anonymný 2 mesiace

Gu A / TURKEY

It found at 2018 by Patrick Laroche who is the member of GIMPS (Great internet Mersenne Prime Search)Volunter Parich Parichne found the Largest prime number in less than four using GIMPS software and earned \$3,000

❤️ 5

3 comments

Gabriela Svobodová 2 mesiace

In Czech it is the same like in Polish or in English. I think it is very interesting idea.

Monika Pofarská 2 mesiace

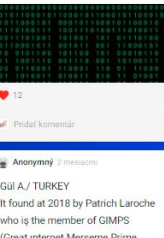
In Slovak it is the same.)

TURKEY (Nevin)

Anonymný 2 mesiace

Beren C./TURKEY

Especially banking transactions and internet shopping etc. In the fields, **prime numbers** are used so that passwords cannot be cracked. **Because** it is very difficult to factor the product of **two very large prime numbers** into their prime factors, which makes it difficult to crack passwords.



❤️ 12

Přidat komentář

Anonymný 2 mesiace

Podob komentářů 1

abdimorbeldebent 1 mesiacom

interesting

❤️ 3

Přidat komentář

Anonymný 2 mesiace

Mehmet Refik Güven Ünye Science High School/ Çağla.p

Prime numbers are just natural numbers with two positive integer divisors.

TURKEY (Berna)

Anonymný 2 mesiace

PRIME NUMBERS

Prime Numbers'

A number which only has two factors - itself and 1.

The first ten prime numbers are: 2 3 5 7 11 13 17 19 23 29

❤️ 3

Přidat komentář

Anonymný 2 mesiace

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

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Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

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Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Princ: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94

Mulher Matemática - há alguma?

Desafio 6

Tarefas

Os estudantes **pesquisaram informações interessantes** sobre a vida e obra de matemáticas famosas e elaboram **fichas biográficas**.

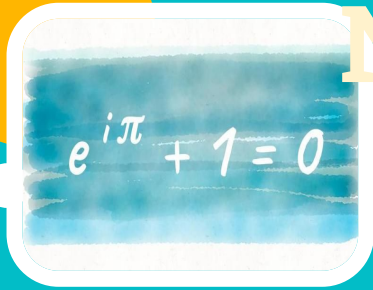
Forma de trabalhar dos alunos

Os alunos trabalharam **individualmente**

Web 2.0 ferramentas

Os estudantes prepararam fichas biográficas no **Google Docs** ou no **Microsoft Word**, usando o mesmo modelo. A coleção comum foi criada no **Padlet**. O e-book foi criado no **FlipHTML5**.

Números Estranhos



Desafio 7

Tarefas

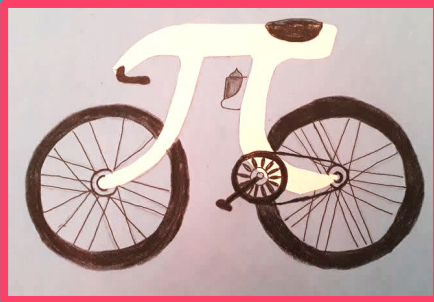
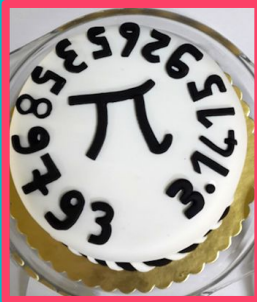
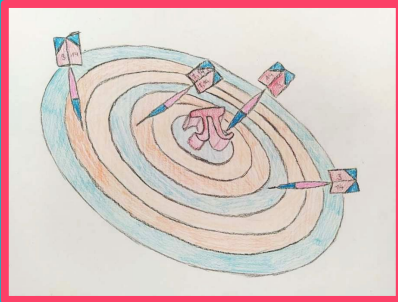
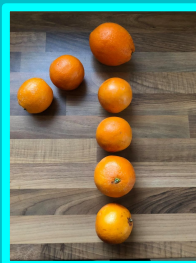
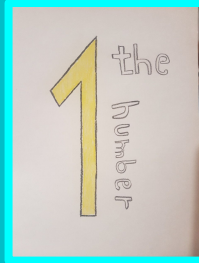
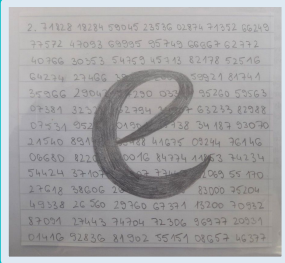
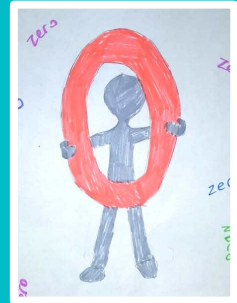
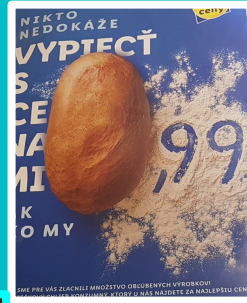
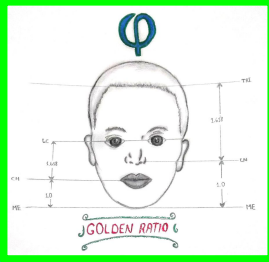
Students **created a collection of photos and audio recordings** about constants π , e , i , φ , 0 and 1 .

Forma de trabalho dos alunos

Os estudantes trabalharam em **15 equipas internacionais**

Web 2.0 tarefas

Os estudantes comunicaram no **TwinSpace Fórum**. Criaram uma fotografia e um áudio sobre a constante (usando a **Vocaroo**). fotos e ficheiros de som na coleção Wakelet



A magia nos números

Desafio 8

Tarefas

Os estudantes procuraram acontecimentos relativos ao número 8 sobre o país do parceiro selecionado, formularam e registaram 8 perguntas de vídeo/voz para a equipa adversária responder e esta apresentou as respostas à equipa parceira.

Forma de trabalho dos alunos

10 equipas nacionais formadas por **pares internacionais**

Web 2.0 ferramentas

Os estudantes fazem questões e respondem em vídeo/voz na aplicação **Flipgrid**. Os estudantes publicam um acontecimento no seu país relativo ao número 8, usando o **Padlet**.

padlet


Agneszka + 32 • 5 hodinami

Number 8 in my country
project eTwinning 10 math challenges

Czech Republic, Gabriela Svobodova

Gabriela Svobodová 2 mesiacmi

In our country, women celebrate International Women's Day (MDŽ) on March 8, as in other countries. But it is an important day for me, because I have a name day ☺.



2

Počet komentárov 1


Monika Pofanská 2 mesiacmi

Poland, Agnieszka Samborek

Agnieszka 3 mesiacmi

Page from Callendar

Good News Day is celebrated in Poland on September 8. On this day we also celebrate the Dreamer Day.



3

Pridaf komentár

Agnieszka 3 mesiacmi

School in Poland


In Poland, pupils finish 8 years in

Portugal, Ana Francisco

Anonymný 2 mesiacmi

Immaculate Conception

In Portugal the day of the Immaculate Conception is celebrated on December 8, every year. That day is a holiday and for everyone it is a very big party.



6


Pridaf komentár

Slovakia, Monika Pofanská

Monika Pofanská 2 mesiacmi

Faulting eights in the history of Czechoslovakia

1918 - Slovakia as a part of Czechoslovakia
1938 - Slovakia as an autonomous part of Czechoslovakia
1948 - Revolution - Slovakia as a communist country
1968 - Beginning of Soviet occupation
1989 - Velvet Revolution - Czechoslovakia is a democratic state



3


Pridaf komentár

Turkey, Berna Arslan

bernaarslan 1 mesiacom

Our city with 8 traffic plates in our country

A city in the Black Sea region in our country where every shade of fascinating green is found.



1

Pridaf komentár

bernaarslan 1 mesiacom

In our country, 8 March is celebrated as women's day.

1

Pridaf komentár

Turkey, Evrim Yelda Dolek

Anonymný 9 dňami

Berk A.


Eight Developing Countries (D-8)

The first step towards the establishment of D-8 was the "Development Cooperation Conference" held in Istanbul on 22 October 1996 with the participation of Iran, Pakistan, Bangladesh, Malaysia, Indonesia, Egypt and Nigeria upon the invitation of Turkey. D-8 was officially established with the Summit of Heads of State / Government held in Istanbul on 15 June 1997, following the preparatory work of three Commissions and two Councils of Foreign Ministers held after this conference.

0

Turkey, Nevin Bilgili

etwinning Project 2 mesiacmi



NEIGHBOR of Turkey

4

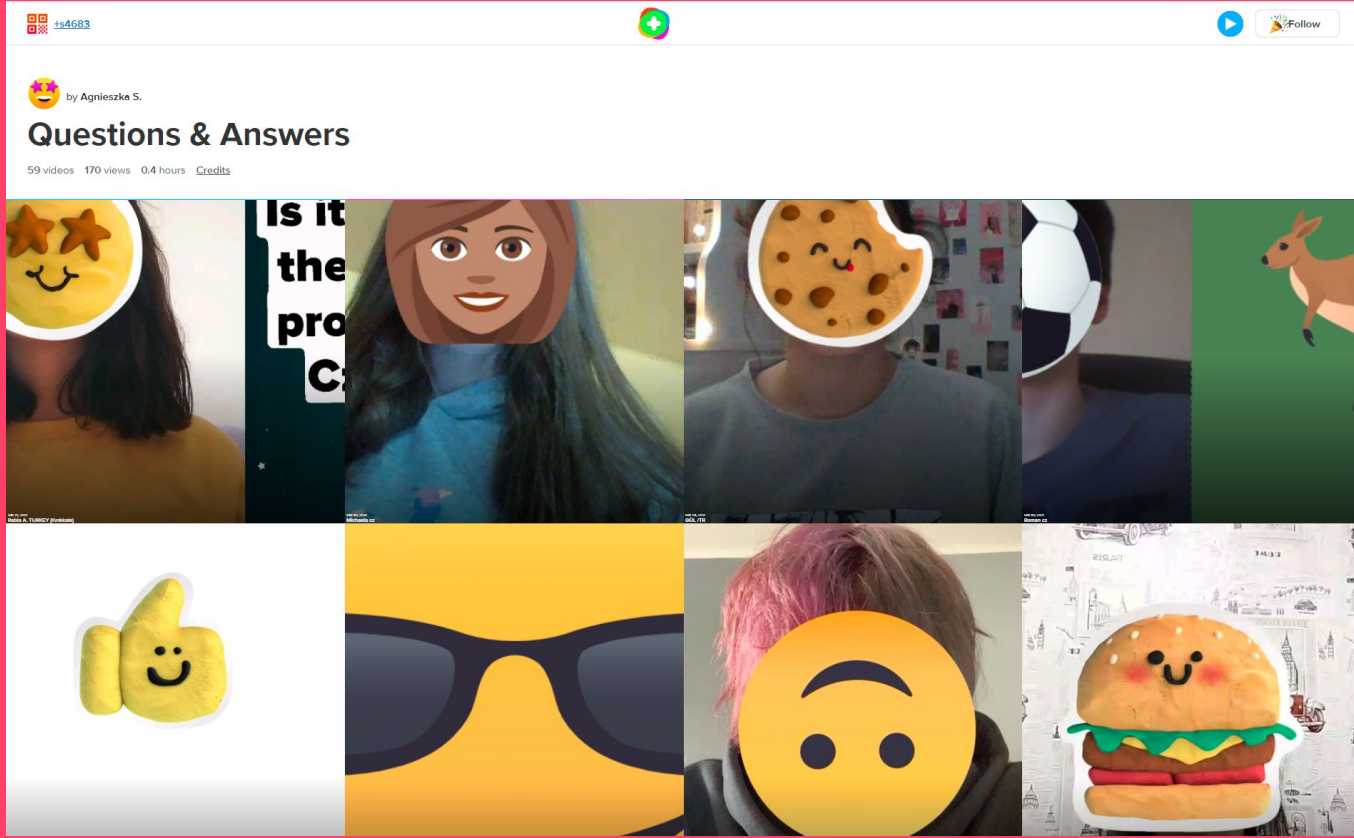
Pridaf komentár

etwinning Project 2 mesiacmi

TURKEY RANKS 8TH IN THE WORLD IN THESE AREAS

- *Number of foreign tourists
- *8th important production base
- *Steel production
- *Poultry production
- *Onion export
- *8 universities in the first hundred
- *8th in purchasing power in Europe

1001-1000 number of



Link: common product in Flipgrid

30

Enigma na Matemática

Desafio 9

Tarefas

Os estudantes jogaram o **jogo da fuga**.
Os estudantes **publicaram alguns factos interessantes** sobre **encriptação**.



Forma de trabalho dos estudantes

Os estudantes trabalham **individualmente**

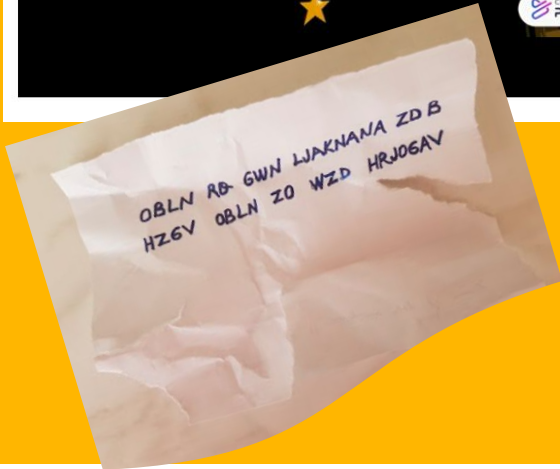
Web 2.0 ferramentas

Os estudantes resolvem o jogo da fuga usando o **Google Form**, publicam os factos importantes da encriptação no **Padlet**.

You are special student
 Because you know Math and Encryption
 You will work Linda's hotel
 You will follow Linda
 If you can help police to solve the murder,
 you will win the special award!

CREATED USING
POWTOO



imecz

sk.viktoria Slo

GÜL/TURKEY

TerkaCZ

MICHAL CZ

Kristyna/CZ



JAKUB CZ

ROMAN CZ

mrgsudenu/TURKEY

Bartek K Poland

MICHAELA CZ



Bartek J PL

Kačka cz

cz Vojta

TEST

TANA CZ



mrg.esmanur.c _ TUR

Andrii CZ

GRIGORIY CZ

Pátik cz

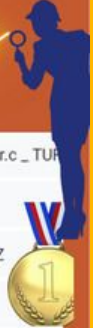
David/cz

Vanesa/Slovakia

JULCA CZ

SZYMON POLAND

Alex, CZ





Matemática nas nossas vidas

32

Desafio 10

Tarefas

Os estudantes **preparam a apresentação** sobre o tópico do desafio. **Fazem um vídeo** para apresentação ao vivo ao par criado com outra equipa, o vídeo é apresentado em **reunião online**

Forma de trabalho dos estudantes

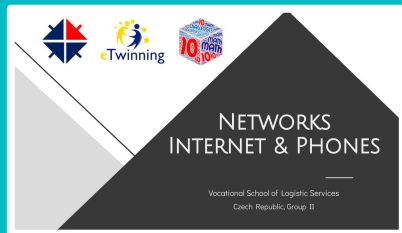
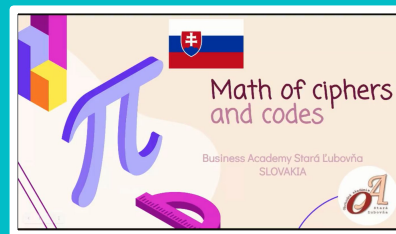
Os estudantes trabalharam em grupos **nacionais e em pares internacionais**

Web 2.0 ferramentas

Uma **aplicação web para preparação da apresentação**, uma aplicação para apresentação ao vivo, gravação e em **Wakelet** para criar as coleções comuns para todos os ficheiros de vídeo.

Matemática na
Arte

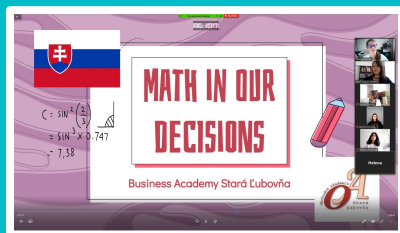
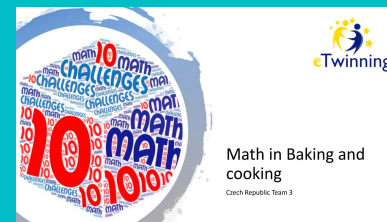
Matemática e as
decisões



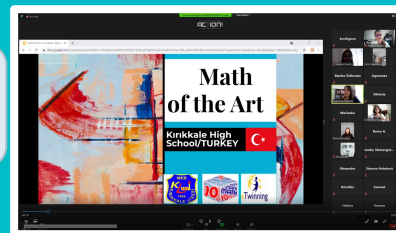
Matemática e
música



Matemática
na Natureza



Matemática
na
construção







Tarefas Voluntárias



fora dos Desafios


Os estudantes prepararam na coleção Padlet regras para trabalharem no projeto relativas à segurança na internet e aos direitos de autor. ³⁵


10 math challenges
Netiquette, e-security and copyright are a key part of the project 10 math challenges.

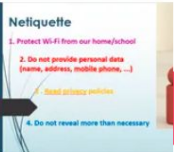
Bosnia and Herzegovina, Lejla Hujdur
Lejla Hujdur 5 mesiacmi
My students post their opinions on netiquette, eSafety and copyright on this linoit table:

Netiquette, eSafety copyrights
lino is an online web sticky note service t...
lino

Bosnia and Herzegovina, Mirela Avdibegović
Anonymný 4 mesiacmi
Hatay Anatolian High School, Evrim Yelda Dölek
Mirela Avdibegovic 4 mesiacmi
Netiquette
Students made a poster about netiquette

Before you post
THINK
T - is it True?
H - is it Helpful?
I - is it Inspiring?

Bosnia and Herzegovina, Nada Sokolovic
Nada Nastavnica1 3 mesiacmi
OŠ "Osman Nakaš", Sarajevo
Nada Nastavnica1 3 mesiacmi
Linoit table

Nada Nastavnica1 3 mesiacmi
Linoit table


Czech Republic, Gabriela Svobodova
Gabriela Svobodová 4 mesiacmi
Our students were thinking about rules of netiquette and eSafety and created linoit canvas with rules on the stickers and word clouds.
canvas1, canvas2

Gabriela Svobodová 4 mesiacmi
Our permission document (for pupils parents)

Poland, Agnieszka Samborek
Agnieszka 3 mesiacmi
Netiquette, copyright, e-security
My students prepared proposals for rules in Polish, we discussed the types of copyrights and the rules of safe participation in the project.


Portugal, Ana Fr
accfrancisco76 3 mesiac
Netiquette, e-securi copyright
We talked about Netique copyright, e-security an poster:

Netiquette
1. Protect Wi-Fi from our home/school
2. Do not provide personal data (name, address, mobile phone, ...)
3. Share always carefully
4. Do not reveal more than necessary

Link: Padlet collection

Os estudantes prepararam postais de **Natal e Ano Novo** para os parceiros do projeto. Em dezembro celebrámos o **Dia do Teorema de Pitágoras**, os estudantes prepararam cartazes no **Canva**. Todas as contribuições foram partilhadas na coleção **Padlet**.

36

The screenshot shows a Padlet collection titled "We celebrate in December 2020" by Monika Pofanská. It features six columns representing different countries: Bosnia and Herzegovina (Lejla), Czech Republic (Gabi), Poland (Agnieszka), Slovakia (Monika), Turkey (Nevin), and Turkey (Uğur). Each column contains posts related to the Pythagorean Theorem Day, Christmas, and New Year. The posts include text messages, images of the theorem, and festive cards. For example, the Bosnia and Herzegovina post by Lejla Hujdur wishes for a healthy and happy 2021. The Czech Republic post by Roman Zavřel includes a drawing of a right-angled triangle with sides labeled a, b, and c, and the equation $a^2 + b^2 = c^2$. The Poland post by Agnieszka features a portrait of Pythagoras. The Slovakia post by Anonymný shows a colorful graphic with the text "PYTHAGORAS THEOREM" and geometric shapes. The Turkey (Nevin) post by Anonymný is a festive Christmas card with a reindeer and the text "MERRY CHRISTMAS" and "HAPPY NEW YEAR". The Turkey (Uğur) post by Ugur cesur is a video message titled "Pythagoras message".

Link: Padlet collection

Alguns **alunos**
resolveram

os labirintos,
publicados pelos países
parceiros no

e-book de labirintos,
durante

as férias de Natal.

Partilharam a sua
solução através da

aplicação **on-line**

Mentimeter.

Link: the results in Mentimeter

Mentimeter



Write team number and maze result you solved. (in parentheses you enter your

Prime numbers – the best presentation

Which presentation do you like most (you should choose from all published presentations)?



Team 1 POLAND – Mateusz PL,
Franek PL, Piotr G PL, Kamil PL,
Mateus PL



Team 2 SLOVAKIA – sk.Alex,
sk.Samuel, sk.Viktoria, sk.Emanuella,
sk.Vanesa



Depois de feitas todas
apresentações relativas
aos números primos,
estudantes e professores
votaram para eleger a
melhor apresentação.

Vencedor na votação dos estudantes

Challenge 5

Prime numbers - building blocks of mathematics

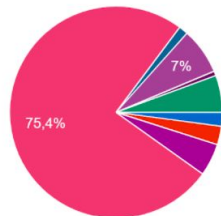
WINNING PRESENTATION IN STUDENT VOTING



WINNER: Team 7 TURKEY – Melisa N., Çağla A.,

Hüseyin A., Feyza T., Berk A.

CONGRATULATIONS!



[Link:](#) Winner presentation - team 7

39

Vencedor na votação dos professores

Challenge 5

Prime numbers - building blocks of mathematics

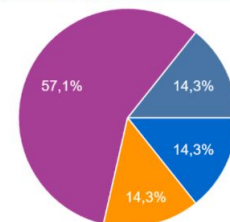
WINNING PRESENTATION IN TEACHERS VOTING



WINNER: Team 11 TURKEY – Beren, Efe, Gül,

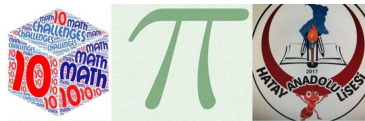
Kerem, Rabia

CONGRATULATIONS!



[Link:](#) Winner presentation - team 11

Projetámos um Poster



3.14159
2.65358
3.14159
832705
169349
944592
862803
132823
812848
111745028410270193852110555964462294895493

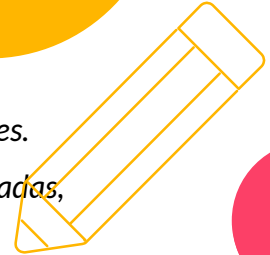
Pi Day is considered a special commemoration of the famous mathematical constant pi and is celebrated annually on 14 March. ... The reason for this is that this day is 3/14 in the American date format, and this is reminiscent of the most common use of the number pi.

Projetámos uma t-shirt



Escrevemos um poema

3.141 592 653 589 793 238 462 643 383 279
É uma equipa,
Um grupo,
eTwinning em corações.
As tarefas são engraçadas,
Aventura avançada,
Um dia-ontem-agora.
Para todos os alunos
Com esforço ou desejo.
Esperança para todos os professores
Pode ser um trabalho de grupo perfeito.





Quiz sobre NÚMEROS ESTRANHOS



41

Taxa de sucesso **90% - 100%** obtida por 15 estudantes (27%)

Depois de completarem o desafio 7

56 alunos fizeram o quiz sobre as constantes.

71,4% dos estudantes atingiram uma taxa de sucesso superior a 60%



Turkey

mrgsudenur
mrgfatmagül
mrgcağla



Slovakia

sk.Ivka	sk.Matej
sk.Helenka	sk.Laura
sk. Emanuella	sk.Nina
sk.Viktoria	sk.Slavka
sk.Julia	sk.Nika



Portugal

Mariana
Francisco

Jogámos o jogo da fuga.
do desafio 9
sem computador



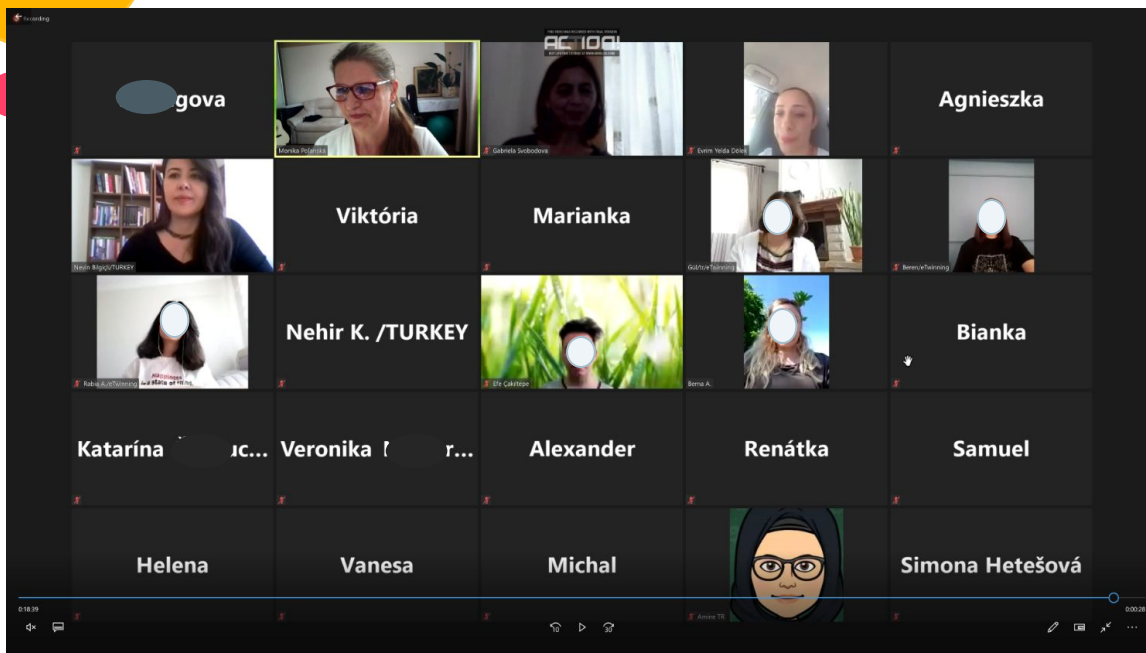
Link: [escape game - video](#)

Depois de **resolverem a misteriosa história**, os alunos tinham à sua disposição uma versão imprimível do jogo.

Podiam preparar o **jogo para os seus irmãos ou amigos**.

e procurar um **tesouro escondido no jardim**.

Online meetings do Desafio 10



Link: [Wakelet video collection](#)



Por detrás

do Projeto

Web 2.0 Tool	Challenge									
	1	2	3	4	5	6	7	8	9	10
Animoto									x	
Applications for real-time meeting							*	*	*	
Canva	x				x		x			
Communication tools			x	x					x	x
Flipgrid									x	
FlipHTML5						*				
Google Docs or MS Word						x		x		
Google Forms					x		x		x	*
Google Slides				x	x					x
Joomag		*								
Kahoot									*	
Mentimeter				x						
Mobile application (camera)							x		x	
Padlet		x	x		x	x			x	x
Pdf merge, pdf creator				*		*				
PosterMyWall	x						x			
Preparing poster tools	x						x			
Presentation tools					x					x
Prezi						x				x
StoryJumper				*						
TwinSpace Forum			x	x	x		x			
Vocaroo							x			
Wakelet	x				x		x			x

Notice: x - student tool, * teacher tool

Challenge	Form		
	individually	teamwork	
		national team	international team
Challenge 1	X		
Challenge 2	X		
Challenge 3			X
Challenge 4		X	
Challenge 5		X	
Challenge 5		X	
Challenge 6	X		
Challenge 7	X		X
Challenge 8	X	X	X
Challenge 9	X		
Challenge 10		X	X

Communication tool	Students	Teachers
Twinspace Mail		X
Twinspace Forum	X	X
Google Forms Surveys	X	X
WhatsApp		X
Online Meetings	X	X
Teachers bulletin		X
E-mail		X
FB messenger	X	
Instagram	X	
Microsoft Teams		X

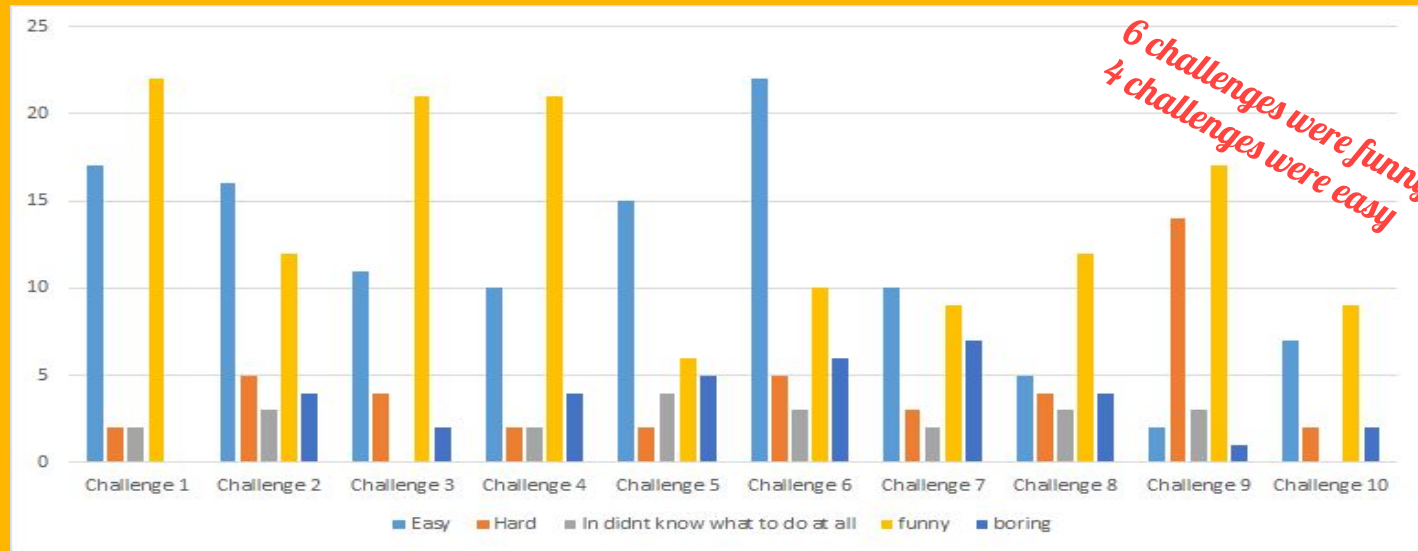
Avaliações

Estatísticas e sondagens

EVALUATIONS

- Pre-test
- Evaluation: July - October 2020
- Evaluation of challenges 1 - 5 by teachers
- Evaluation of challenges 1 - 5 by students
- Evaluation report, part 1
- ? Strange numbers - quiz
- Teacher`s survey to the challenge 8
- Student`s survey to the challenge 10
- Kahoot test, challenge 10
- Evaluation of challenges
- Final evaluation of project by students
- [DRAFT] Final evaluation of project by project partners/teachers
- [DRAFT] Final evaluation of project by parents
- [DRAFT] Final evaluation of project by school managers and colleagues

Alunos e desafios de Matemática



Avaliação de desafios acabados

Table of finished challenges

Agrupamento de Escolas de Pombal

Student	Challenge									
	1	2	3	4	5	6	7	8	9	10
Beto	ok	ok	ok	ok	ok		ok	ok		ok
Filipe	ok	ok	ok	ok	ok	ok	ok	ok		ok
Mariana		ok		ok	ok		ok	ok		ok
Francisco		ok		ok	ok		ok			ok

Na sala de aula seguimos o trabalho dos alunos.



Certificate of participation

This certifies that

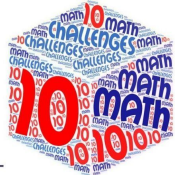
NAME SURNAME

School
Country

successfully completed eTwinning project

10 MATH CHALLENGES

Slovakia | Czech Republic | Poland | Turkey
Portugal | Bosnia and Herzegovina



Monika Polanská
Project administrator

Agnieszka Samborek
Project administrator

Teacher's name surname
Advisor teacher

2020/2021



Certificados de participação



Divulgaçã

Todos os professores divulgaram o nosso trabalho de projeto nos seus websites escolares, perfis de FB, aplicações do WhatsApp, revistas e noutros lugares.

KIRIKKALE / MERKEZ
Kırıkkale Lisesi

Grup Sayf

Nevin Bölgeci - Öğretmen

SLOVAKYA VE POLONYA'NIN KURUCUSU OLDUĞU, OKULUMUZUN ORTAK OLARAK KATILDIĞI ULUSLAR ARASI MATEMATİK PROJESİ "10 MATH CHALLENGE" EKİM AYI İTİBARIYLA BAŞLADI

THE MATHS IS MORE ENJOYABLE WITH CHALLENGE

SLOVAKYA VE POLONYA'NIN KURUCUSU OLDUĞU, OKULUMUZUN ORTAK OLARAK KATILDIĞI ULUSLAR ARASI MATEMATİK PROJESİ "10 MATH CHALLENGE" EKİM AYI İTİBARIYLA BAŞLADI

KIRIKKALE HIGH SCHOOL

Polonya ve Slovakiya'nın kurucusu olduğu, okulun ortak katıldığı uluslararası Matematik projesi CHALLENGES çalışmalarını ekim ayı itibarıyla proje başlatılmaktadır.

Okulumuz matematik öğretmeni Berna koordinatörlüğünde yürüttüğümüz "10 Math Challenge" projesini Polonya, Portekiz, Çekya, Bosna Hersek, Slovakiya ve Türkiye'den ortaklar ile oluşturulmuş bir proje olarak başlatılmaktadır. Proje, matematiğin sadece sayıların ve sembollerle ifade edilmesini değil, matematiğin günlük hayatımızdaki rolünü ve öğrencilerimizin bu konudaki meraklarını gidermek için tasarlanmıştır. Proje, matematiğin günlük hayatımızdaki rolünü ve öğrencilerimizin bu konudaki meraklarını gidermek için tasarlanmıştır.

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23 saat önce · Facebook for Android

2020-2021 eğitim-öğretim yılında okulumuzda öğrencilerimize "10 MATH CHALLENGE" projesi başlatılmaktadır. Proje, matematiğin sadece sayıların ve sembollerle ifade edilmesini değil, matematiğin günlük hayatımızdaki rolünü ve öğrencilerimizin bu konudaki meraklarını gidermek için tasarlanmıştır.

THE MATHS IS MORE ENJOYABLE WITH CHALLENGE

10 MATH CHALLENGES - Kolejny Projekt Etwinning

LIVE! RANKING

ETWINNING 10 MATH CHALLENGES

DESIGN WORKS HAVE STARTED

2020-2021

W tym projekcie chcieliśmy zaprzyjaźnić uczniów z matematyką. Chcemy im pokazać, że matematyka nie jest nudną nauką pełną liczb i tajemniczych postaci, ale że matematyka jest też humorystyczna i spotykamy ją nie tylko w szkole, ale także w życiu codziennym. Projekt ma na celu rozbudzenie zainteresowania matematyką, kształtowanie umiejętności pracy w grupach międzynarodowych, pogłębienie umiejętności wykorzystania narzędzi ICT w edukacji oraz



O nosso projeto está a chegar ao fim. Foi um desafio e o tempo também foi desafiante. A difícil situação derivada da pandemia COVID-19, que afetou cada país parceiro, fez com que apenas 9 das 23 escolas envolvidas concluíssem este projeto.

Obrigada

pela sua atenção

10 Math
Challenges

Projeto
eTwinning

2020/2021



POLAND-SLOVAKIA-CZECHIA-TURKEY

PORTUGAL-BOSNIA AND HERZEGOVINA

