



# 10 Matematik Mücadelesi

(10 Math Challenges)

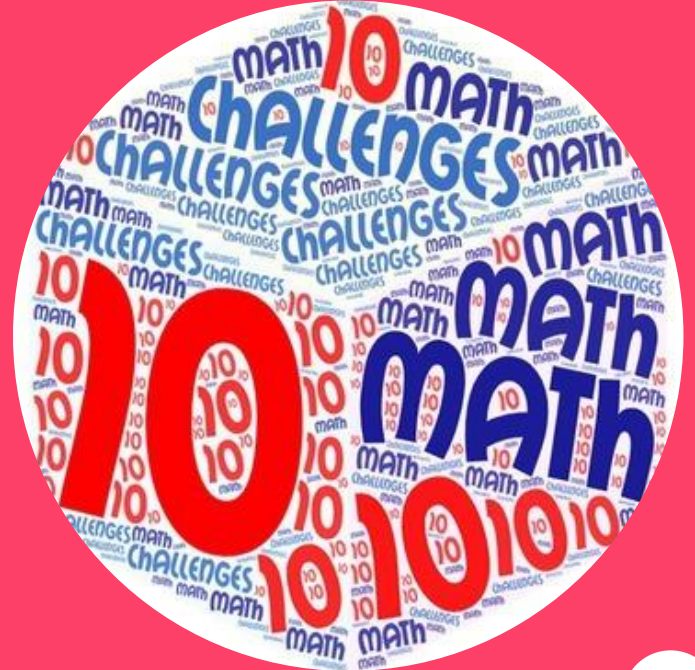
Uluslararası  
eTwinning projesi  
2020/2021

Özet/Final e-Kitabı

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



Türkçe  
Özet  
FİNAL  
e-kitabı





## Registrácia projektu eTwinning

Týmto sa potvrdzuje, že

### **MONIKA POL'ANSKÁ**

Obchodná akadémia Jarmočná 132, Stará Ľubovňa, Slovensko

založil/a projekt

### **10 MATH CHALLENGES**

06.07.2020

Počet učiteľov v krajine zapojených do projektu:

**BOSNA A HERCEGOVINA (3), PORTUGALSKO (2),  
POĽSKO (2), SLOVENSKO (1),  
SRBSKO (1), TURECKO (9),  
ČESKÁ REPUBLIKA (1)**

**Katarína Hrbáčňová**  
Národná podporná služba  
Slovensko

**Ph.D. Paweł Poszytek**  
Národná podporná služba  
Poľsko

## Neden Matematik Projesi?

### Dil

Matematiğin dili evrenseldir.

### Kullanım

Matematik günlük yaşamda her gün kullanılır.

### Amaç

Matematik ilgi çekici ve eğlenceli hale getirilebilir.



Bu proje alıřmalarıyla  
ğrenciler ile matematiđi  
“Arkadař”  
yapmak istedik.

Matematiđin sadece okulda karřılařılan sıkıcı ve gizemli karakterlerle dolu bir bilim dalı olmadıđını, gnlk yařamda da karřımıza ıkan mizahi bir yanının olduđunu gstermek istedik....

# Proje amalarımız

1. Matematięi önemli bir bilim dalı olarak yaygınlařtırmak
2. 15-19 yař grubundaki öğrencilerin matematięe ilgisini arttırmak
3. Matematikle ilgili olumsuz ön yargıları yıkmak
4. BİT kullanımını öğrencilerin alışmana entegre etmek
5. Yaratıcılığı ve matematiksel düşünmeyi geliřtirmek
6. BİT kullanımını anlamlı yollarla teřvik etmek
7. Yabancı dilde iletişim becerilerini geliřtirmek
8. Grupla alışma becerilerini geliřtirmek
9. Web 2.0 araçlarını kullanma becerilerini geliřtirmek
10. İnternet kaynaklarıyla alışırken telif hakları ve e-güvenlik konularına öğrencilerin dikkat ekmek

## Başlangıçtaki ekibimiz

### 10 Ülke

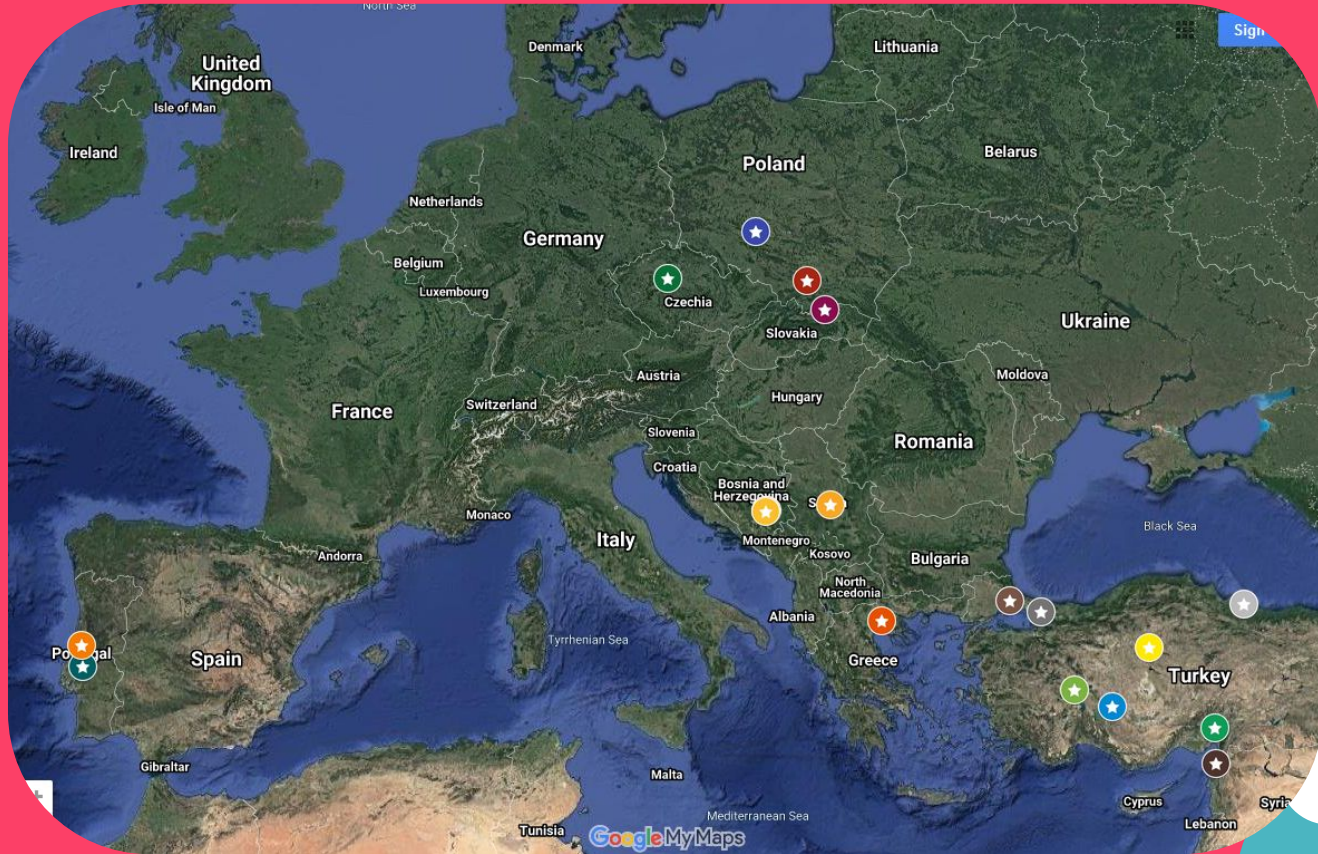
Bosna Hersek  
Hırvatistan  
Çekya  
Yunanistan  
Polonya  
Portekiz  
Romanya  
Sırbistan  
Slovakya  
Türkiye

23 Okul

23 Öğretmen

141 Öğrenci

# Proje ortaklarının lokasyonları



# İlk adımlar

## Tanışma Plan

### e-güvenlik

#### ICEBREAKER

- ☁ Input word cloud
- 📊 Project PRE-TEST

#### PARTNERS

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

#### ABOUT PROJECT

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

#### 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


### About schools

About schools

Dear partners,  
please, write some information about your school and your students.  
We would like to know school logo and how many students will be involved in this project.

Schools participating in the project:


📄 Add item




### About students

Partners in the project - students:

📄 Add item



**Alžběta**  
Hi, I'm Alžběta and I'm 10 years old. I'm studying at the business academy in the second class. This

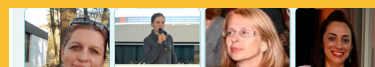
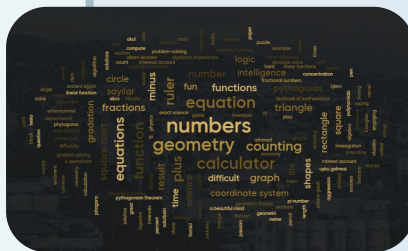


**Kamila Poland**  
Hi! I'm Kamila, I'm going to Cracow. I'm 15 years old, I'm interested in Computer games and



**Julia, Slovakia**  
Hello! My name is Julia and I'm from Slovakia. I love to read books. I'm interested in

### About teachers

### Schedule

PROPOSAL#2

Week	September	October	November	December	January	February	March	April	May
Week 1	1	2	3	4	5	6	7	8	9
Week 2	10	11	12	13	14	15	16	17	18
Week 3	19	20	21	22	23	24	25	26	27
Week 4	28	29	30	31	1	2	3	4	5
Week 5	6	7	8	9	10	11	12	13	14
Week 6	15	16	17	18	19	20	21	22	23
Week 7	24	25	26	27	28	29	30	31	1
Week 8	2	3	4	5	6	7	8	9	10
Week 9	11	12	13	14	15	16	17	18	19
Week 10	20	21	22	23	24	25	26	27	28
Week 11	29	30	31	1	2	3	4	5	6
Week 12	7	8	9	10	11	12	13	14	15
Week 13	16	17	18	19	20	21	22	23	24
Week 14	25	26	27	28	29	30	31	1	2
Week 15	3	4	5	6	7	8	9	10	11
Week 16	12	13	14	15	16	17	18	19	20
Week 17	21	22	23	24	25	26	27	28	29
Week 18	30	31	1	2	3	4	5	6	7
Week 19	8	9	10	11	12	13	14	15	16
Week 20	17	18	19	20	21	22	23	24	25
Week 21	26	27	28	29	30	31	1	2	3
Week 22	4	5	6	7	8	9	10	11	12
Week 23	13	14	15	16	17	18	19	20	21
Week 24	22	23	24	25	26	27	28	29	30
Week 25	31	1	2	3	4	5	6	7	8
Week 26	9	10	11	12	13	14	15	16	17
Week 27	18	19	20	21	22	23	24	25	26
Week 28	27	28	29	30	31	1	2	3	4
Week 29	5	6	7	8	9	10	11	12	13
Week 30	14	15	16	17	18	19	20	21	22
Week 31	23	24	25	26	27	28	29	30	31

#### Netiquette, copyright, e-security




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

### PROTECT YOUR PERSONAL INFORMATION

In eTwinning Projects

LOGIN DETAILS

Protect your login details!  
Ask the teacher for a strong password



# Matematik mücadelelerine başladık

Eylül 2020

TWINNING

10 MATH CHALLENGES

20

DESIGN WORKS HAVE STARTED

# Dünyayı deęiřtiren bir matematikçi

## 1. Mücadele

### Görev

Öğrenciler, ismi kendi isimlerinin baş harfi ile başlayan bir **matematikçi arařtırdılar**. Bu matematikçi ile ilgili bazı önemli özellikleri içeren **posterler** oluşturup arkadaşları ile paylařtılar.

### Çalıřma Şekli

**Bireysel**

### Web 2.0 araçları

Öğrenciler **Canva / PosterMyWall** gibi araçlarla çalıştılar. Tüm posterlerle **Wakelet** koleksiyonu oluşturuldu.



the foundations of the  
theory of electricity.



sk.Sima

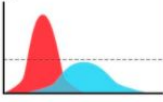
sk.Sima · Oct 20, 2020

## 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

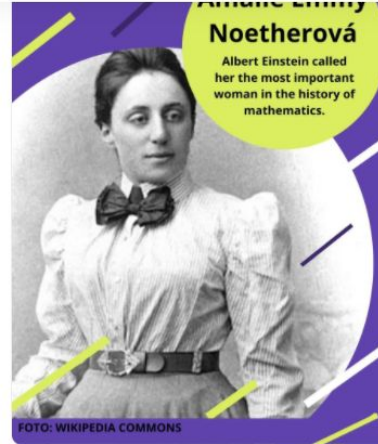
## KAROL REČIČÁR

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.

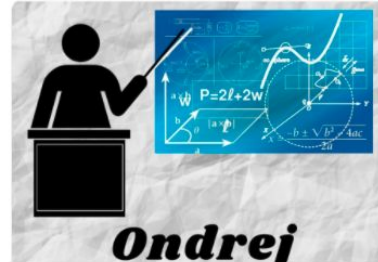
HE WORKED IN THE PEDAGOGICAL AND SCIENTIFIC FIELD, PROMOTED MODERNIZATION EFFORTS IN THE TEACHING OF MATHEMATICS AND DESCRIPTIVE GEOMETRY, AND WAS REGULARLY THE PEDAGOGICAL LEADER OF THE YEARS. IN THE BEGINNING, HE HELPED TO BUILD THE DEPARTMENT MATERIALLY AND PERSONNEL. HE COMPILED COMPREHENSIVE TEACHING 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



sk.Nina · Oct 16, 2020



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

# BULDUM!

## 2. Mücadele

### Görev

Öğrenciler **6 mantık problemini** çözdüler ve arkadaşlarıyla çözümlerini paylaşarak tartıştılar.

### Çalışma Şekli

**Bireysel**

### Web 2.0 araçları

Öğrenciler çevrimiçi **Padlet** aracıyla çalıştılar ve tüm paylaşımlarla ortak **Padlet** koleksiyonu oluşturdular.

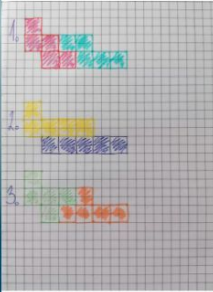
özlem kahraman + 50 · 11 dñami

**Eureka!**  
Intelligence Questions

### Six Pieces

Pridaf komentär

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

Pridaf komentär

ananka

### Two Three



4

Pridaf komentär

### Rabia/TURKEY

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

7

Počet komentárov 1

mehmeturam38 1 mesiacom  
nice

Pridaf komentär

### skVanesa

My example -  $360 : 3 = 120$

5

### Pawns

Počet komentárov 1

özlem kahraman 3 mesiacmi  
Congratulations!

Pridaf komentär

sk.sima & sk.emanella

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

3


Pridaf komentär

### 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

Pridaf komentär

### 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


Pridaf komentär

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

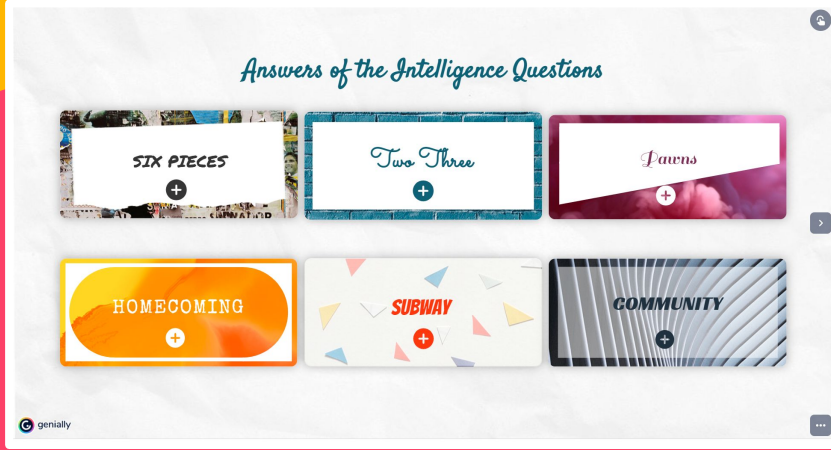
Pridaf komentär

### skMaruska

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

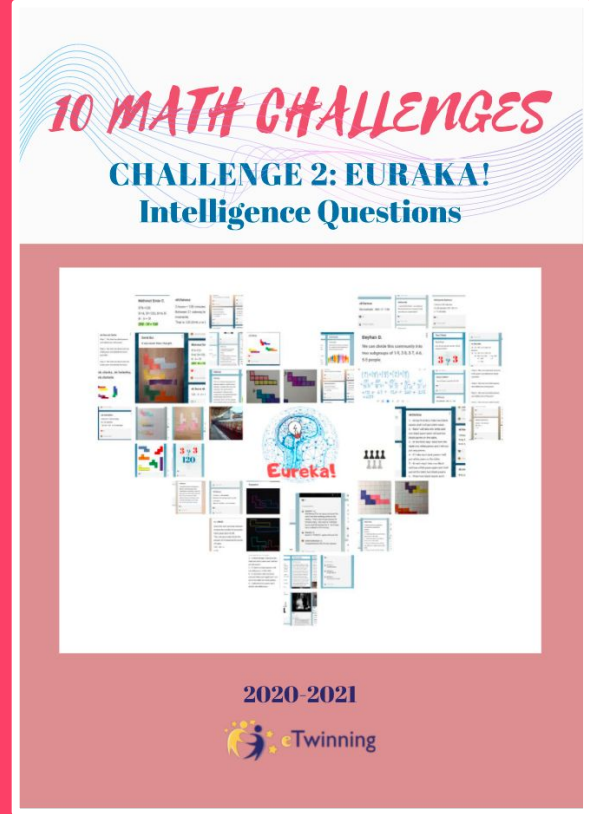
5

Pridaf komentär



Çözümler

Tüm öğrenci cevapları  
ile oluşturulan e-kitap



Link: [Çözümler](#)



# Şehrimdeki Geometri

16

## 3. Mücadele

### Görevler

Öğrenciler kendi şehirlerinden bir **yapının fotoğrafını** arkadaşları ile paylaştılar ve farklı ülkelerden paylaşılan **yapı fotoğrafları üzerinde matematik ve geometriyi aradılar**. Buldukları ilişkileri fotoğraflar üzerinde **işaretle**yerek padlet aracı ile paylaştılar.

### Çalışma Şekli


**15 uluslararası takım**


### Web 2.0 araçları


Öğrenciler **TwinSpace Forum** aracılığı ile iletişim kurdular ve tüm incelenen fotoğraflarla **Padlet** koleksiyonu oluşturduklar.




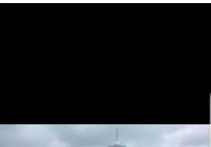
accfrancisco76 + 61 · 4 mesiaci  
**Geometry in my city**  
 Put the photo from your task here.


**Anonymný** 5 mesiaci  
 MRGSUDENUR  
 MEVLEVİ TOMB  



**Melisa Nur Yozlu** 5 mesiaci  
 Geometrics  



**Anonymný** 5 mesiaci  
 sk.Nina  
 Mevlana Museum in Konya, Turkey  
 halil kayalar  



**Anonymný** 5 mesiaci  
 MRGESMANUR  
 UNYE MUSEUM  



**Anonymný** 5 mesiaci  
 MRGFATMAGÜL  
 TAŞBAŞI CHURCH /ORDU  



**Anonymný** 5 mesiaci  
 sk.Nina  
 Municipal house , Prague , Czech Republic  
 cz Kristyna  


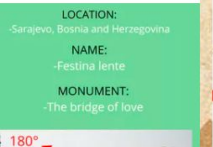
**Anonymný** 5 mesiaci  
 mrgzerrin  
 YASON CHURCH  
 PERŞEMBE /ORDU  



**Anonymný** 4 mesiaci  
 sk. Daniela  



**Anonymný** 5 mesiaci  
 sk.Emanuella  



**Anonymný** 5 mesiaci  
 mrgçağla  
 I wanted to add a second city from my country. ISTANBUL (Galata Tower)  
 TURKEY  
 Çağla  


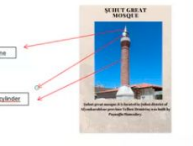
**Anonymný** 5 mesiaci  
 sk.Emanuella  



**Namik Brkanic** 5 mesiaci  
 Festina lente - most ljubavi  
 Sarajevo, Bosna i Hercegovina  
 LOCATION:  
 -Sarajevo, Bosnia and Herzegovina  
 NAME:  
 -Festina lente  
 MONUMENT:  
 -The bridge of love  
 180°  
 LOCATION -Sarajevo, Bosna and Herzego...  
 PDF document  
 padlet drive  


**Anonymný** 5 mesiaci  
 MRG.ÇAĞLA  
 Ünye-Ordu TURKEY  
 I discovered geometry in historical buildings in the city where I live  
 3.group  


**Anonymný** 5 mesiaci  
 sk.Saška  


**Amina Dzhanic** 5 mesiaci  
 amina.dz  
 Scared Heart Cathedral, Sarajevo,  
 Bosnia and Herzegovina.  


**Anonymný** 5 mesiaci  
 MRG.ÇAĞLA  
 Ünye-Ordu TURKEY  
 I discovered geometry in historical buildings in the city where I live  
 3.group  


**Anonymný** 5 mesiaci  
 sk.Nina  
 Fants building of the main railway station, Prague, czech Republic  
 cz Imelda  


# Yolunu Bul

## 4. M¼cadele

### Grev

ğrenciler grup halinde **labirentler** oluřturdular ve labirentlere **¼nl¼** bir kiřinin **matematik ile ilgili bir sz¼n¼** gizlediler.

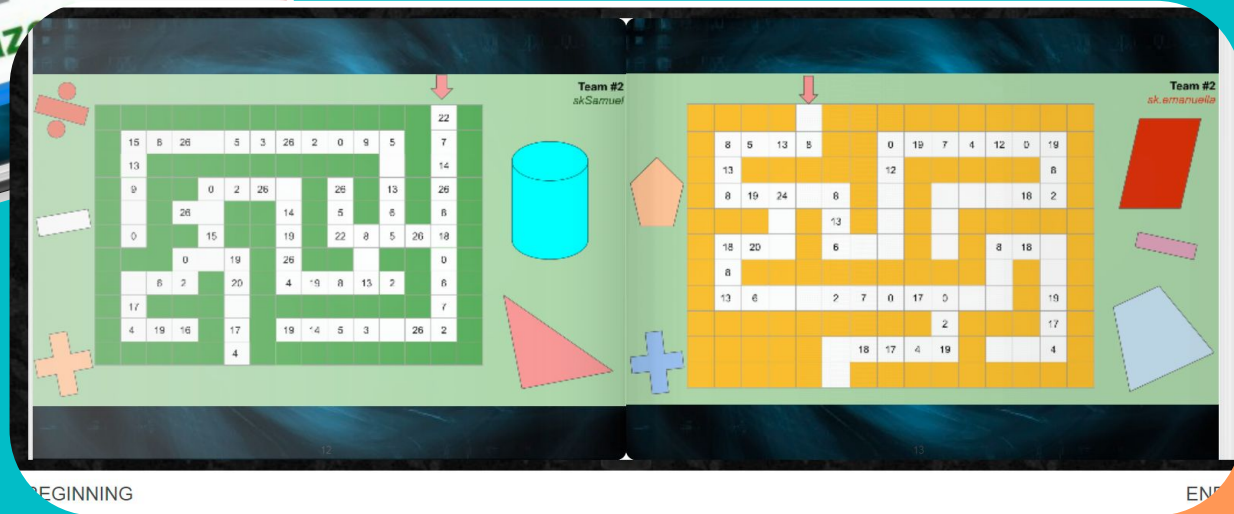
### alıřma Őekli

**19 ulusal takım**

### Web 2.0 tools

ğrenciler **TwinSpace Forum** da iletiřim kurdular. Takımlar **Google Slides** ile labirentleri oluřturdular. ğretmenler grupları ynetti ve t¼m labirentleri ieren e-kitabı **StoryJumper** aracı ile oluřturdular.





# Asal sayılar- matematiğin yapı taşları

## 5. Mücadele

### Görev

Öğrenciler **asal sayıların** özellikleri ve günlük hayattaki **önemi** hakkında sunumlar hazırladılar. Ayrıca öğrenciler asal sayıları araştırırken karşılaştıkları ilginç bilgileri paylaştılar.

### Çalışma Şekli

**19 ulusal takım**

### Web 2.0 araçları

Öğrenciler çevrimiçi araçlar **G-Suite Slides/ Prezi/ Canva** ile çalıştılar. Ayrıca ortak **Wakelet** ve **Padlet** koleksiyonları oluşturdular



## Prime numbers – building blocks of mathematics

16 items · 820 views

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



Link: [Wakelet koleksiyonu](#)



### 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 minüt önce

## 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

**CZECHIA**  
(Gabi)

Jakub Letošík 2 mesiace önce

Jakub/CZ

The only even prime number is number 2.



❤️ 6


Přidat komentář

**POLAND**  
(Agnieszka)

Agnieszka 2 mesiace önce

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

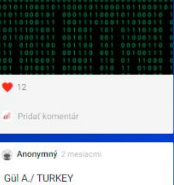
Přidat komentář

**TURKEY**  
(Nevin)

Anonymný 2 mesiace önce

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.



❤️ 3

Přidat komentář

**TURKEY**  
(Berna)

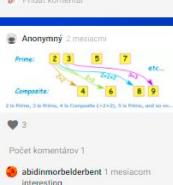
Anonymný 2 mesiace önce

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

**TURKEY**  
(Evrim)

Anonymný 1 mesiac önce

Prime Number

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

❤️ 0

Přidat komentář

**TURKEY**  
(Ugur)

mustafabalciberent 2 mesiace önce

5a + 4 ile 4b - 1 aralarında asal ve

3a + 4 = 2

4b + 3 = 5

olduğuna göre, 5a + 4b toplamı kaçtır?

A) 6 B) 5 C) 4 D) 3 E) 2

❤️ 4

4 comments

mustafabalciberent 2 mesiace önce

Prime numbers between 5a + 4 and 4b-1

mehmeturam38 1 mesiac önce

hard :(

halikayalar38 1 mesiac önce

so much fun

evrimyelda 1 mesiac önce

I solved

❤️ 0


Přidat komentář

**BOSNIA AND HERZEGOVINA** (Lejla)

Amina Dzhanic 2 mesiace önce

Amina/ Bosnia and Herzegovina

The largest known prime number (as of November 2020) is  $2^{521,809,160} - 1$ , a number which has 248,620,448 digits when written in base 10. It was found via a computer volunteered by Patrick Larocche of the Great Internet Mersenne Prime Search (GIMPS) in 2018.



❤️ 7

3 comments

eTwinning Project 2 mesiace önce

May be)

tugbacamderentent 1 mesiac önce

good

mehmeturam38 1 mesiac önce

thank you

❤️ 0

Přidat komentář

# Kadın matematikçi - var mı?

## 6. Mücadele

### Görev

Öğrenciler **dünyadaki kadın matematikçilerin** hayatları ve çalışmaları hakkında araştırma yaptılar ve ilgilerini çeken bir kadın matematikçi ile ilgili **biyografi kartı** hazırladılar.

### Çalışma Şekli

#### Bireysel

**Web 2.0 araçları**  
Öğrenciler biyografi kartlarını **Google Docs** ya da **Microsoft Word** şablonları ile hazırladılar. Ortak koleksiyon **Padlet** ile **oluşturuldu** ve **FlipHTML5** ile ortak e-kitap haline getirildi



Lejla Hujdur + 78 + 11 dđami  
**eTw project: "10 math challenges"**  
 Task 6: Female mathematician - is there any?

The collage displays numerous biography cards for female mathematicians, including:

- Beren C./TURKEY** (HYPATIA)
- Kerem B./TURKEY** (Katherine Johnson)
- Amina Dzhahic** (Amina/ Bosnia and Herzegovina, Amalie Emmy Noether)
- sk.Vanasa** (KATHERINE JOHNSON)
- sk.Daniela** (Émilie de Châtelet)
- imelda ibendji** (imelda.CZ)
- Stepanka/CZ**
- TUGBA CAMDERE/DERBENT /TURKEY** (TUGBA CAMDERE/DERBENT /TURKEY HULYA SENKON)
- Güla./TURKEY** (AGNESI)
- Julca/cz**
- Dorothy Mand Winch**
- Piotr/Poland**
- Caroline Her...**

E-BOOK  
 OF BIOGRAPHY CARDS



**FEMALE  
 MATHEMATICIAN**

- IS THERE ANY?

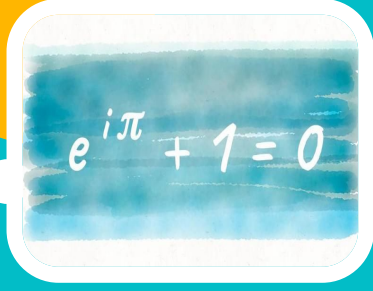


CHALLENGE 6  
 OF 10 MATH CHALLENGES  
 PROJECT  
 2020/2021

e-book

# Garip sayılar

## 7. Mücadele



### Görev

Öğrenciler, önemli matematik sabitleri  $\pi$ ,  $e$ ,  $i$ ,  $\varphi$ ,  $0$  ve  $1$  ile ilgili çıktıkları yaratıcı **fotoğrafları** ve bu sabitlerin özelliklerini anlattıkları **ses kayıtlarını** paylaştılar.

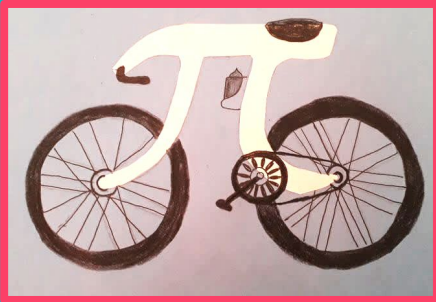
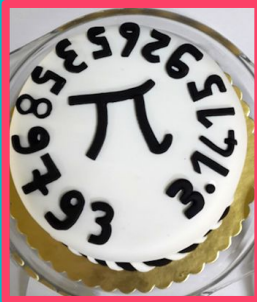
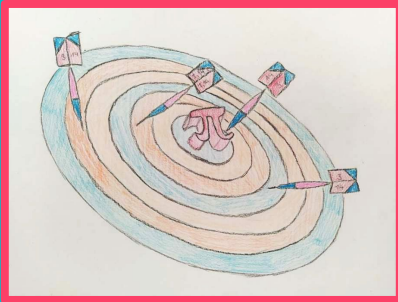
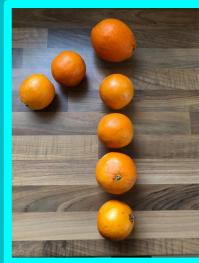
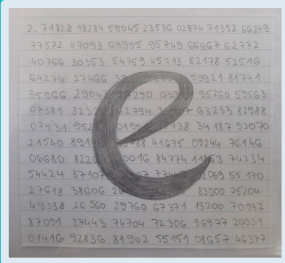
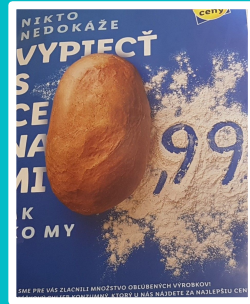
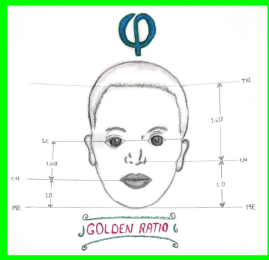
### Çalışma Şekli

**15 uluslararası takım**

### Web 2.0 araçları

Öğrenciler **TwinSpace Forum** üzerinden iletişim kurdular. **Vocaroo** ile ses kayıtlarını yaptılar. Tüm ses kayıtları ve fotoğraflar ile **Wakelet** koleksiyonu oluşturdular.





# Basit Sayıların Büyüsü

## 8. Mücadele

### Görev

Öğrenciler, seçilen **ortağın ülkesiyle ilgili sayısal gerçekleri** araştırdılar, Karşı takımın yanıtlaması için **8** ayrı sorusuyu **video kaydı** oluşturarak sordular. Sorular diğer ülke tarafından benzer biçimde video kaydı yapılarak cevaplandı.

### Çalışma şekli

**10 ulusal takım ve uluslararası eşleşmeler**

### Web 2.0 araçları

Öğrenciler video kayıtlarını **Flipgrid** aracı ile paylaştılar. Ayrıca kendi ülkelerinden **8** rakamı ile alakalı bilgileri **Padlet** aracı ile paylaştılar.

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, Agneszka Samborek**

Agneszka 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

Agneszka 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

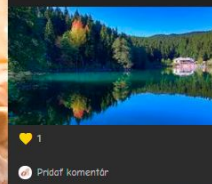
Pridaf komentár

**Turkey, Berna Arslan**

bernaarslann 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

bernaarslann 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.

**Turkey, Nevin Bilgili**

etwinning Project 2 mesiacmi



NEIGHBOR of Turkey

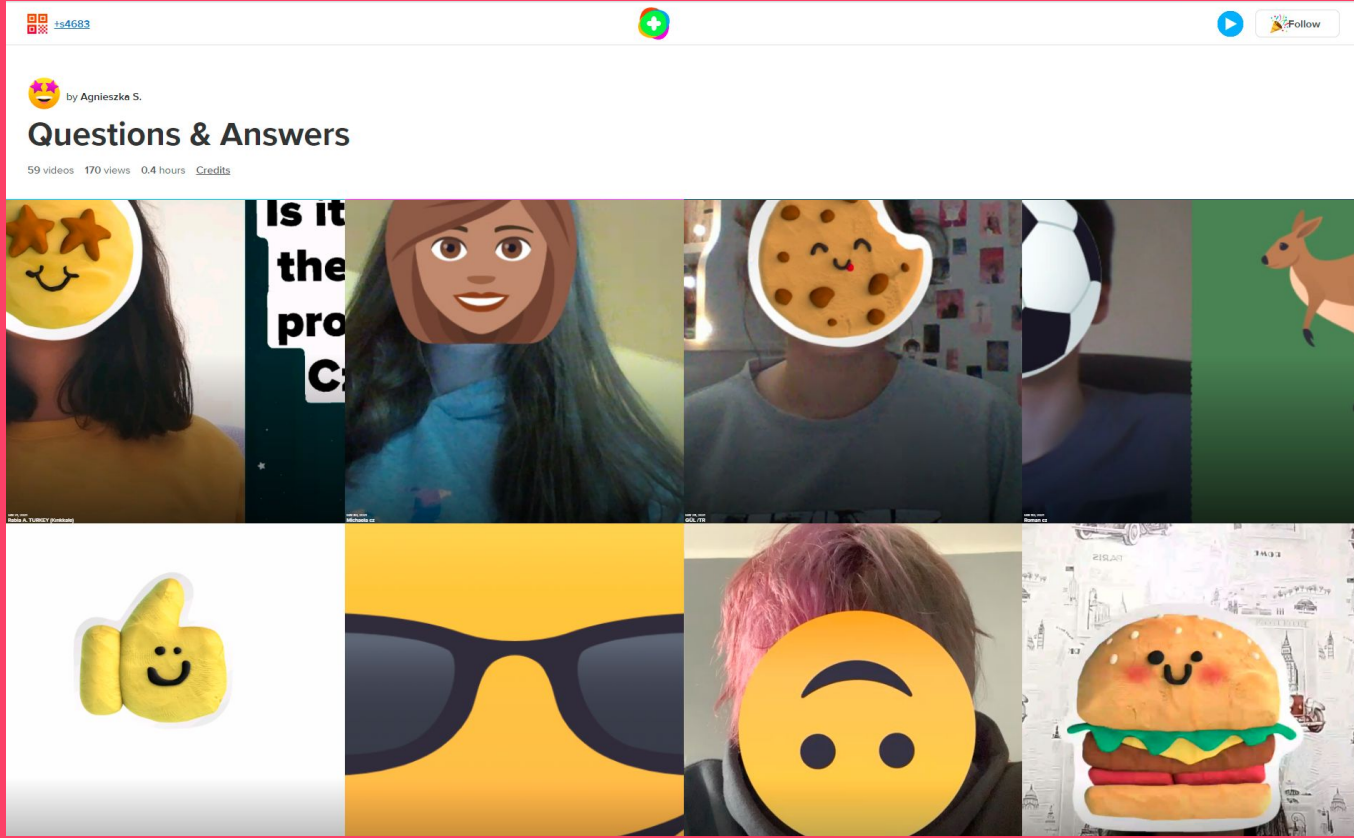
4

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



Link: [Flipgrid ortak video ürünü](#)

# Gizemli Matematik Hikayesi

## 9. M¼cadele

### Görev

Öğrenciler, temel matematiksel işlemlere dayanan yöntemlerle, gizemli bir olayın şifrelerini çözdükleri **kaçış oyunu** oynadılar. **Şifreleme** ile ilgili bazı önemli bilgileri arkadaşlarıyla paylaştılar.

### Çalışma Şekli



#### Bireysel

### Web 2.0 araçları

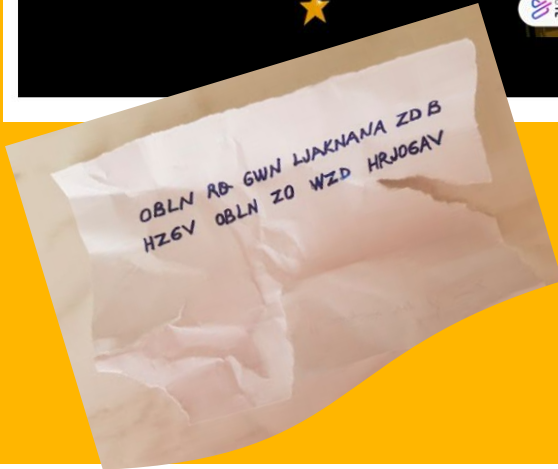
Öğrenciler **Google Form** çevrimiçi aracıyla kaçış oyunu oynadı, şifreleme ile ilgili paylaşımlarını **Padlet** aracıyla yaptı. Gizemli olayın anlatıldığı ortak e-kitap **Story Jumper** aracı ile oluşturuldu.



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**



## Challenge 9 continues

imecz	JAKUB CZ	Bartek J PL	mrg.esmanur.c _ TUR
sk.viktoria Slo	ROMAN CZ	Kačka cz	Andrii CZ
GÜL/TURKEY	mrgsudenuR/TURKE	cz Vojta	GRIGORIY CZ
TerkaCZ	Bartek K Poland	TEST	Pátik cz
MICHAL CZ	MICHAELA CZ	TANA CZ	David/cz
Kristyna/CZ		oland	Vanesa/Slovakia
		irkey	JULCA CZ
		ILA-TURKEY	SZYMON POLAND
		lovakia	Alex, CZ



# Hayatımızdaki matematik

## 10. mücadele

### Görevler

Öğrenciler matematiğin hayatımızdaki kullanım alanlarından biri ile ilgili **sunumlar hazırladılar**. Sunumlarını eşleştikleri farklı bir ülke takımı ile **online toplantı** düzenleyerek yaptılar. Tüm ortaklar bu toplantılara dinleyici olarak katıldılar.

### Çalışma Şekli

**Ulusal gruplar**

**Uluslararası çiftler**

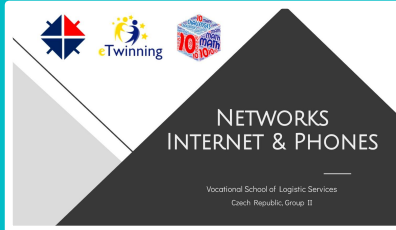
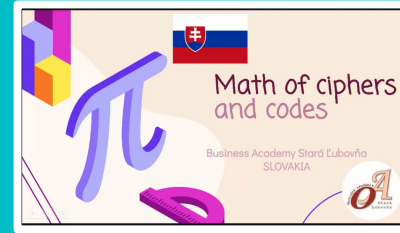
### Web 2.0 tools

Canlı sunumlar için **Zoom, Google Meet** araçları kullanıldı. Tüm sunumları içeren koleksiyon **Wakelet** ile oluşturuldu.



Math inside

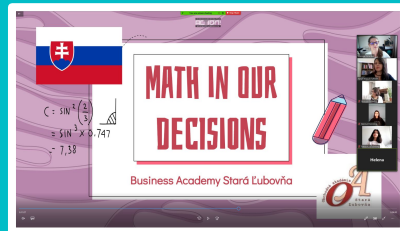
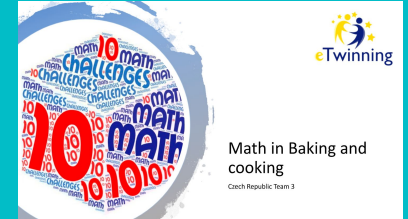
Speech  
Recognition



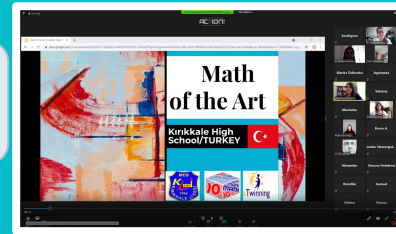
Math and  
Music



Math in  
Nature



Math of  
Building  
Bridges





Mücaleler Dışındaki  
**Gönüllü Görevler**

# Öğrenciler **proje kuralları**, internet etiği, e-güvenlik ve telif hakları konularında **Padlet** koleksiyonu oluşturular.

35

Agneszka + 13 · 23 dñami


## 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




T - is it True?  
F - is it Helpful?  
I - is it Inspiring?

Bosnia and Herzegovina, Nada Sokolovic


Nada Nastavnica1 3 mesiacmi

ÖŠ"Osman Nakaš", Sarajevo



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

acfrancisco76 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 all using carefully
4. Do not reveal more than necessary

Link: [Padlet koleksiyonu](#)

Öğrenciler Aralık ayında **yeni yılı** ve **Pisagor Teoremi gününü** kutladılar. Canva ile posterler hazırlayıp Padlet aracıyla paylaştılar.

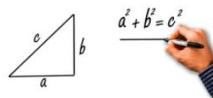
36

Monika Pofanská + 15 · 22 dijami  
**We celebrate in December 2020**  
Pythagorean Theorem Day, Christmas, New year


**Bosnia and Herzegovina (Lejla)**

Lejla Hujdur 2 mesiacmi  
May 2021. be the year of health, joy and happiness for all of us!  
Happy New Year  
Happy New Year - 10 math challenges by Lejla Hujdur vimeo  
7  
3 comments  
NBilgiçli 2 mesiacmi  
Thanks Lejla, I agree with your good wishes.  
ugur cesur 2 mesiacmi  
WONDERFULL


**Czech Republic (Gabi)**

Roman Zavřel 2 mesiacmi  
**Pythagorean Theorem Day**  
I wish you a Merry Christmas, happy holidays and Happy New Year. A lot of health, happiness and accomplishments!  
  
5  
2 comments  
mehmeturam38 1 mesiacom  
very nice  
abidinmorbelderbert 1 mesiacom  
nice


**Poland (Agnieszka)**

Agnieszka 2 mesiacmi  
**Pythagorean Theorem Day**  
  
**Pythagorean Theorem Day by sagatrable**  
YouTube  
5  
Počet komentárov 1  
halikayalar38 1 mesiacom  
so much fun


**Slovakia (Monika)**

Anonymný 2 mesiacmi  
skMaruska  
  
8  
4 comments  
NBilgiçli 2 mesiacmi  
Çok güzel, teşekkürler

**Turkey (Nevin)**

Anonymný 1 mesiacom  
Rabia A./TURKEY  
**MERRY CHRISTMAS**  
  
hope 2021 will be a good year for everyone. I wish everyone a healthy, successful and enjoyable year. HAPPY NEW YEAR!  
Twinning  
5  
Počet komentárov 1  
tugbacamderederbert 1 mesiacom  
nice

**Turkey (Uğur)**

ugur cesur 2 mesiacmi  
**Pythagoras message**  
  
YouTube  
8  
5 comments  
Monika Pofanská 2 mesiacmi  
wow :)  
NBilgiçli 2 mesiacmi  
(Nice.)  
tugbacamderederbert 1 mesiacom  
good teacher  
mehmeturam38 1 mesiacom  
nice

Link: Padlet collection

# Mentimeter

37

Bazı öğrenciler labirentlere gizlenmiş ünlü kişilere ait **matematik sözlerini** buldular ve mentimeter aracına bu sözleri yazdılar.



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

Link: [Mentimeter sonuçları](#)



## 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.Emanuela,  
sk.Vanesa



5. Mücadelede Asal sayılarla ilgili tüm sunular tamamlandıktan sonra öğrenciler ve öğretmenler en iyi hazırlanmış sunumu seçmek için oylamaya katıldılar.

## Öğretmen anketi birincisi: Kırıkkale Lisesi

Challenge 5

Prime numbers - building blocks of mathematics

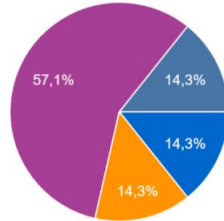
WINNING PRESENTATION IN TEACHERS VOTING



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

Kerem, Rabia

**CONGRATULATIONS!**



## Öğrenci anketi birincisi: Hatay Anadolu Lisesi

39

Challenge 5

Prime numbers - building blocks of mathematics

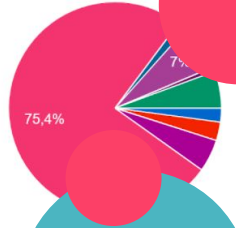
WINNING PRESENTATION IN STUDENT VOTING



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

Hüseyin A., Feyza T., Berk A.

**CONGRATULATIONS!**



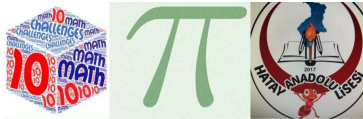
Link: [Winner presentation - team 11](#)

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



## 14 Mart π Gününü Kutladık

Poster tasarımı  
yaptık



3.14159  
265358979  
329816729  
83270503887197  
16934926438743956  
94459230781640628620899  
86280348253421170679821480865  
1328230664709384460955058223172535940  
812848111745028410270193852110555964462294895493  
1491048788107734402448198795487477917910101148488

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.

t-shirt  
tasarımı  
yaptık



π-  
Piliş  
yazdık

3.141 592 653 589 793 238 462 643 383 279

Its a team,

A group,

eTwinning in hearts.

Tasks are funny,

Advanced adventure,

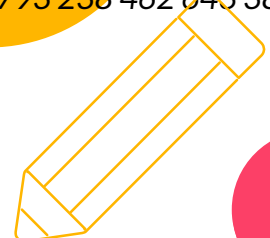
Someday-yesterday-now.

To all students

With effort or desire.

Hope for all teachers

May be perfect groupwork.





## Garip sayılar ile ilgili Quiz yaptık



41

15 öğrenci (27 %) **90% - 100%** başarı oranına ulaştılar.



### Türkiye

mrgsudenur  
mrgfatmagül  
mrgcağla



### Slovakya

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



### Portekiz

Mariana  
Francisco

7. Mücadeleyi  
tamamladıktan sonra

**56 öğrenci**  
matematiksel sabitler  
ile ilgili quize katıldı.

Öğrencilerin % 71.4 ü,  
ortalama %60 başarı  
puanına ulaştılar.

## Mücadele 9 daki Kaçış oyununu Bilgisayar olmadan oynadık

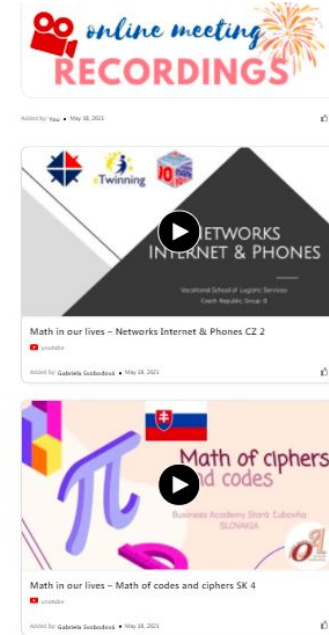
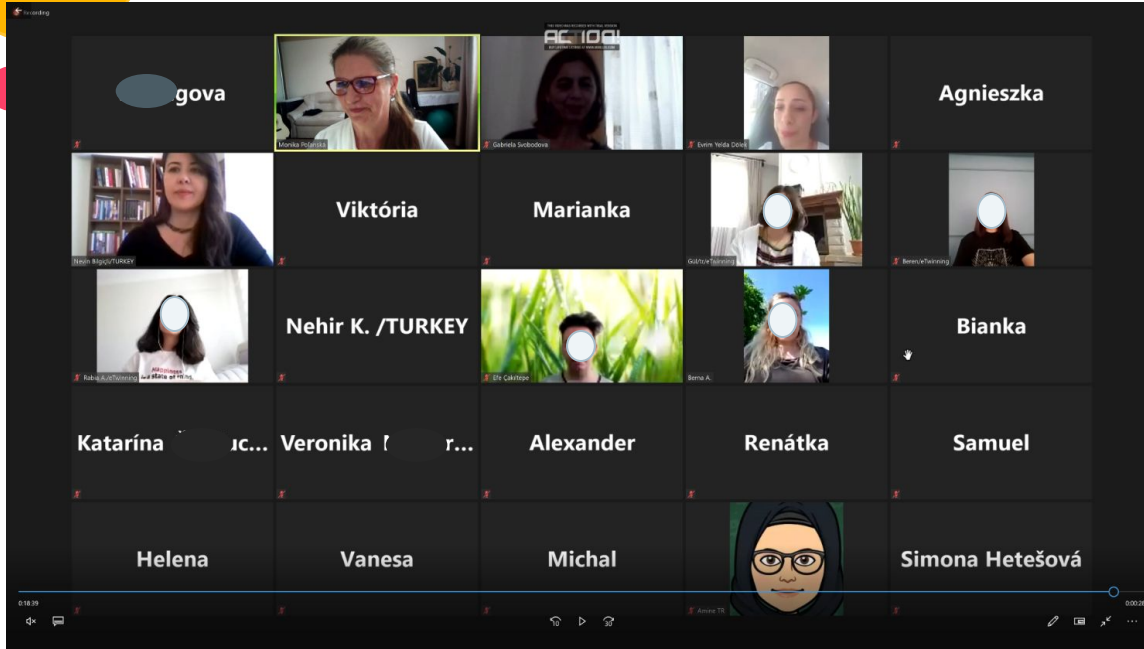


9. Mücadelede öğrenciler kaçış oyununu oynayıp tüm şifreleri çözdükten sonra bu oyunu yazdırabilecekleri bir dosyaya ulaştılar. Böylece öğrenciler oyunu, kardeşleri ya da proje dışındaki arkadaşları için hazırlayıp oynayabildiler.

Link: Kaçış oyunu aile etkinliği videosu

## 10. Mücadele Online Sunumları

43



Link: [Sunum videoları Wakelet koleksiyonu](#)

# Proje alıřmaları

Sonrasında

## Kullanılan Web 2.0 Araçları

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



## Kullanılan İletişim Araçları

46

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

# Değerlendirmeler ve İstatistikler

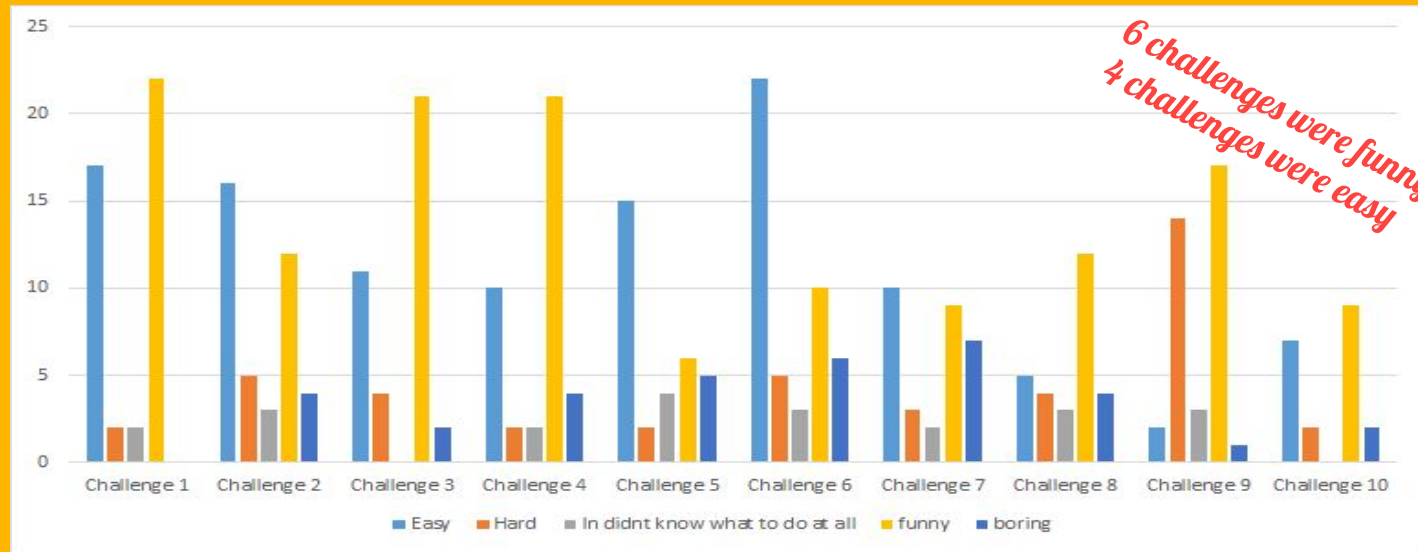
Pek çok açıdan projemizi  
değerlendirdik

## 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



## Mücadelelerle ilgili öğrenci anket sonuçları







### Certificate of participation

This certifies that

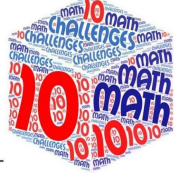
**NAME SURNAME**

School  
Country

successfully completed eTwinning project

**10 MATH CHALLENGES**

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



Monika Poľanská  
Project administrator

Agnieszka Samborek  
Project administrator

2020/2021

Teacher's name surname  
Advisor teacher

“

*Katılımcı öğretmen ve öğrenciler sertifika aldılar*

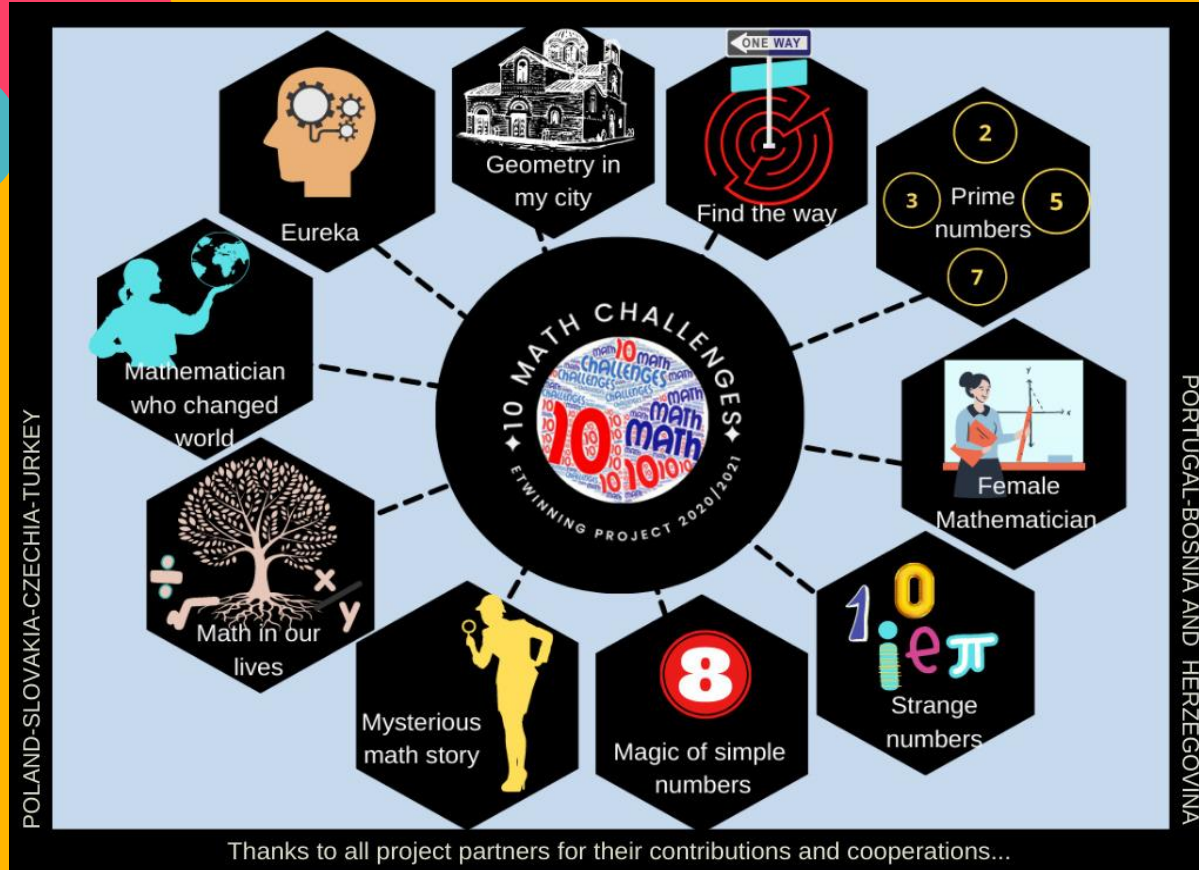








*Projemiz sona eriyor! Bu projede 10 mücadelenin yanı sıra zorlu pandemi koşulları ile de mücadele ettik. Tüm dünyayı etkisi altına alan COVID-19 salgını nedeniyle 23 okuldan sadece 9'u projeyi tamamlayabildi. **Slovakya, Polonya, Türkiye, Bosna Hersek, Portekiz ve Çekya ülkelerinden öğretmen ve öğrencilerin işbirlikçi ve uyumlu çalışmaları ile proje çalışmalarının hepsi başarılı biçimde tamamlandı.***



## Teşekkürler

10 Math Challenges

eTwinning project

2020/2021

Dr. Nevin Bilgiçli/Kırıkkale Lisesi  
Matematik Öğretmeni

