

Problem
1:



IZAZOV ZA SVETSKE PUTNIKE

Grupa mladih ruskih bogataša je osmisnila sledeći izazov. Svi kreću na put sa Crvenog trga danas, 3. aprila, tačno u podne, po lokalnom moskovskom vremenu, a nalaze se ponovo u ponedeljak, 5. aprila, na istom mestu, tačno u podne. Pobednik je onaj koji u ta dva dana pređe najduži put, a budžet koji je izdvojen za svakog od njih je 50.000 dolara.

Koji je vaš zadatak?

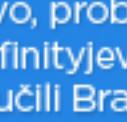
Da im predložite kako da naprave najduži put. Što put u vašem planu bude duži, dobiceće više poena. Ali za svaku distancu morate pružiti dokaz da je moguće preći tu rutu u traženom vremenu, kao i dokaz da niste prekoracili budžet koji imaju na raspolaganju.

Vaše planiranje putovanja počinje sad!



BRAINFINITY IZAZOV 2021

Problem
2:



TAJNI SASTANAK

Zdravo, problem solveri. Profesor Ivan Anić ovde. Stari Brainfinityevci me već dobro znaju, a za vas koji ste se tek sada priključili Brainfinity takmičenju, dragi mi je da se upoznajemo. Ja sam jedan od najvećih fanova problem solvinga!

I ovoga puta moj prijatelj Vladislav ima jedan zadatak za mene. On mi je poslao sledeću poruku:

„Slušaj, moj voz stiže u sledeću subotu tačno u 12:40h, a ti vrlo dobro znaš kako su nemački vozovi tačni. Ne smem mnogo da dužim sa ovim. Znam da je šala, ali mi nije svejedno kada ljudi kažu da taj grad ne postoji. Čim stignem na stanicu, odmah prelazim na Plan B, tamo me čeka čovek sa novcem. Možda sam malo konfuzan, ali idem dalje bez zadržavanja. Neću da Jurim, idem normalnim hodom da ne skrenem pažnju na sebe. Ispred najbliže prodavnice tehnike me čeka čovek sa GPS uređajem. Posle toga se upućujem prema tamo, znaš već, kod Fridriha. Popeću se na najvišu tačku. Tu me čekaj. Ne možeš da promašiš, tu je crveno-bela zastavica. Vidimo se uskoro!“

Verujem da vam je jasno da treba da se nađem sa Vladislavom na određenom mestu u određeno vreme. Međutim, važno je da on ne čeka mene duže od pet minuta, ali i da ja njega ne čekam duže od pet minuta, jer ćemo postati sumnjivi. Vaš zadatak je da mi kažete gde i kad treba da dođem.

Uzgred, sve ovo mi je veoma važno i moram da budem siguran da ste dobro dešifrovali mesto sastanka i dobro izračunali vreme. Zbog toga mi morate poslati što jače dokaze da ste u pravu.

Hvala vam na pomoći.
Profesor Ivan Anić

BRAINFINITY IZAZOV 2021

Problem
3:



SAHARA BUDUĆNOSTI

Kao što znate, danas je veoma važno da energija koja nam je potrebna za život i razvoj civilizacije bude što čistija. Jedan od najčistijih izvora energije je energija Sunca, a način na koji se ona može iskoristiti jeste primena solarnih panela.

Ovog puta za vas smo spremili jedan zadatak koji je veoma važan za ekologiju i opstanak čovečanstva. Učili ste iz geografije da je Sahara najveća pustinja na svetu. Zahvaljujući tome, ona poseduje ogroman potencijal za stvaranje solarne energije, koja je društву i te kako potrebna.



Od vas očekujemo da procenite koliko se energije može dobiti iz pustinje Sahare korišćenjem solarnih panela.

Analizirajte sve faktore koji na ovo utiču, diskutujte i debatujte međusobno, ispitajte ovaj način stvaranja energije i dajte nam konkretne odgovore.

Jedva čekamo da vidimo vaše ideje!

BRAINFINITY IZAZOV 2021

Problem
1:



A CHALLENGE FOR GLOBETROTTERS

A group of wealthy young Russians has come up with the following challenge. Today, April 3, at noon local Moscow time, each of them is embarking on a journey from Red Square. They will meet again at the same location on Monday, April 5, at noon sharp. The winner is the person who travels the longest distance during those two days, and the budget for each member is \$50,000.

What's your assignment?

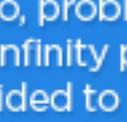
To suggest the longest route. The longer the route, the more points you will win. However, for each journey you have to prove that it can be completed within the deadline and without exceeding the available budget.

Start planning the journey now!



BRAINFINITY CHALLENGE 2021

Problem
2:



SECRET MEETING

Hello, problem solvers. Professor Ivan Anić here. Experienced Brainfinity players know me well, and for those of you who have decided to join the competition now – nice to meet you. I'm one of the biggest fans of problem solving!

My friend Vladislav has another assignment for me. I received the following message from him:

“Listen, my train is arriving next Saturday at exactly 12:40 pm, and you know how punctual German trains are. I mustn't beat about the bush. I know it's a joke, but I don't find it funny when people say the city doesn't exist. As soon as I reach the station, I'll head to Plan B, where the man will be waiting with the money. Maybe I'm not making complete sense, but I'm moving on without stopping. I won't rush, I'll walk at my regular pace so that I don't draw attention to myself. The man with the GPS device will be waiting for me in front of the nearest tech store. Afterwards, I'll head towards...you know, Friedrich. I'll climb the highest point. Wait for me there. You won't miss the red and white flag. See you soon!”

I believe you understand that I'm supposed to meet Vladislav at a specific location at a specific time. However, it's important that we don't wait for each other for more than five minutes, because otherwise we'll become suspicious. Your task is to tell me when and where to go.

Incidentally, all of this is highly important so I have to be sure you've decoded the meeting point and calculated the time well. So, send the best evidence you have.

Thanks for your help.
Professor Ivan Anić



BRAINFINITY CHALLENGE 2021

Problem
3:



THE SAHARA OF THE FUTURE

As you know, it's extremely important that the energy we need for life and the development of our civilization be as clean as possible. One of the purest energy sources is the Sun, and the best way to use solar energy is through solar panels.

This time, we have prepared a task which is highly important for the environment and the survival of humankind. In geography lessons, you've learned that the Sahara is the largest desert on Earth. Therefore, it has vast potential for creating solar energy which we all so greatly need.

Your assignment is to evaluate how much energy can be obtained from the Sahara using solar panels.

Analyze all factors, discuss and debate, find real examples, research this method for producing energy, and send specific answers.

We can't wait to see your ideas!

BRAINFINITY CHALLENGE 2021