

Codeforces Round 692 (Div. 1, Div. 2) and Technocup 2021 — Elimination Round 3

By [sincerity](#), [history](#), 25 hours ago, translation, 

Hi all!

This weekend, at [Sunday, December 20, 2020 at 18:05](#) we will hold Codeforces Round 692. It is based on problems of Technocup 2021 Elimination Round 3 that will be held at the same time.

Technocup is a major olympiad for Russian-speaking high-school students, so if you fall into this category, please register at [Technocup 2021 website](#) and take part in the Elimination Round.

Div. 1 and Div.2 editions are open and rated for everyone. Register and enjoy the contests!

The Elimination Round authors are [neckbotov](#) and [sincerity](#). Thanks to [Nebuchadnezzar](#) and [KAN](#) for their coordination. Also huge thanks to testers for their invaluable help: [isaf27](#), [300iq](#), [Kaban-5](#), [low](#), [Himanshu_77](#), [wiwitrifai](#), [Ashishgup](#), [spar5h](#), [Nemo](#), [Gauravvv](#), [Vax](#), [XLor](#), [Um_nik](#), [ADJA](#), [jiufeng](#), [RobeZH](#), [Daryusz](#), [antontrygubO_o](#), [NMFF0B0H](#), [_rkm](#), [gratus907](#), [manikjain4](#)!





Have fun!

Elimination Round will feature 7 problems, preliminary costs are **500 — 1000 — 1750 — 2000 — 2250 — 2750 — 3250**.




Div. 2 will feature 6 problems, preliminary costs are **500 — 1000 — 1750 — 2000 — 2250 — 2750**.

Div. 1 will feature 6 problems, preliminary costs are **750 — 1000 — 1250 — 1750 — 2250 — 3000**.

[Read more »](#)

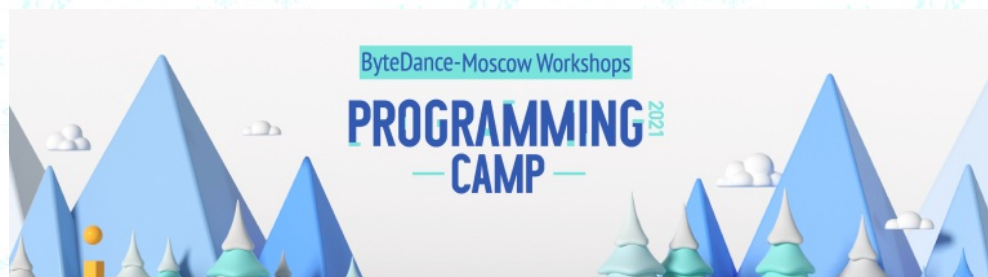
-  Announcement of Technocup 2021 - Elimination Round 3
-  Announcement of Codeforces Round #692 (Div. 1, based on Technocup 2021 Elimination Round 3)
-  Announcement of Codeforces Round #692 (Div. 2, based on Technocup 2021 Elimination Round 3)
-  [technocup](#)

 **+232** 

 [sincerity](#)  25 hours ago  **38**

Codeforces Round #691, based on ByteDance — Moscow Workshops Online Contest

By [Endagorion](#), [history](#), 3 days ago, 



Hello, Codeforces community!

I'm glad to invite you to Codeforces Round #691 (Div. 1) and Codeforces Round #691 (Div. 2), which will be held on [Saturday, December 19, 2020 at 12:35](#). **The round will be rated**

→ Pay attention

Contest is running
[Technocup 2021 - Elimination Round 3](#)
 00:36:45
[Register now »](#)

Contest is running
[Codeforces Round #692 \(Div. 1, based on Technocup 2021 Elimination Round 3\)](#)
 00:36:45

Contest is running
[Codeforces Round #692 \(Div. 2, based on Technocup 2021 Elimination Round 3\)](#)
 00:36:44

→ Streams

[CF Round 692 post-contest discussion + ICPC NA Practice 4](#)
 By [ecnerwala](#)
 Before stream 00:51:43

[View all →](#)

→ Top rated

#	User	Rating
1	tourist	3783
2	Benq	3633
3	ecnerwala	3629
4	Um_nik	3500
5	ksun48	3424
6	maroonrk	3376
7	ainta	3318
8	jiangly	3316
9	Radewoosh	3313
10	yosupo	3259

[Countries](#) | [Cities](#) | [Organizations](#) [View all →](#)

→ Top contributors

#	User	Contrib.
1	Monogon	208
2	Errichto	204
3	SecondThread	200
4	vovuh	188
5	pikmike	187
5	Um_nik	187
7	antontrygubO_o	184
8	Ashishgup	170
9	pashka	169
10	-is-this-fft-	167

[View all →](#)

for both divisions.

The problems were taken (mostly) from the ByteDance — Moscow Workshops Online Contest, which is happening at the same time. They were prepared by me, **AndreySergunin**, and **amethyst0**. We are very thankful to the testers: **low_**, **_rkm_**, **ecnerwala**, **Tima**, **IITianUG**, **thenymphsofdelphi**, **mohammedhab2002**, **namanbansal013**, **Redux** for their time and great feedback. Also big thanks to Bytedance instructors **chenjb** and **MiFaFaOvO** for testing and reviewing the Bytedance online contest.

ByteDance is a global technology company operating a range of platforms that allow people across languages, cultures and geographies to create, discover and connect. **ByteDance** has partnered with **Moscow Workshops** and **Codeforces** to organize a top tier and exclusive training camp for the International Collegiate Programming Contest. The upcoming Programming Camp will be held in Beijing from February 20th to 26th, 2021.



ByteDance — Moscow Workshops Online Contest is an opportunity to participate as teams in this camp.

You can find more information about this training camp, including registration and prizes at <https://programcamp.bytedance.com/>.

Important update: please be informed that the Bytedance online team contest ends **25 minutes after** the Codeforces round does. For this reason, we ask you not to discuss the problems publicly during that time, **until 3pm MSK**. Code and testcases public display will also be disabled during that time. Thank you for your understanding.

Scoring distribution:

Div. 2: 750-1000-1500-2000-2500-3000

Div. 1: 500-1000-1500-2000-2250-3500

Final update: thanks for participating, hope you had fun! Let's hear it for the winners:

Div. 1 (the only contestants to solve 5 problems):

1. **tourist**
2. **Um_nik**
3. **142857**
4. **maroonrk**
5. **DmitryGrigorev**

Div. 2:

1. **spepd** — the only Div.2 contestant to solve 5 problems!
2. **LebronDurant**
3. **diuven_fanclub**
4. **-sakuro**
5. **CTP_314**

Here's a (now complete) editorial.

Happy winter holidays to all of you, and see you again on the leaderboards!

[Read more »](#)

- Announcement of Codeforces Round #691 (Div. 1)
- Announcement of Codeforces Round #691 (Div. 2)

+465

[Endagorion](#) 3 days ago 239

Educational Codeforces Round 100 [Rated for Div. 2]

By **pikmike**, [history](#), 4 days ago, translation,

Hello Codeforces!

On Thursday, December 17, 2020 at 17:35 Educational Codeforces Round 100 (Rated for

→ Find user

Handle:

Find

→ Recent actions

- kartik8800** → [A course on Dynamic Programming](#)
- sincerity** → [Codeforces Round 692 \(Div. 1, Div. 2\) and Technocup 2021 — Elimination Round 3](#)
- admsoj** → [What do you drink or eat during a contest?](#)
- Cyborg_pro** → [Seeking help from expert coders](#)
- Ant_Man** → [XXI Open Cup \(GP of Xiaomi\)](#)
- pikmike** → [Educational Codeforces Round 100 Editorial](#)
- MikeMirzayanov** → [Frequently Asked Questions](#)
- deepkamal** → [Doubt regarding policy based data structure](#)
- 300iq** → [VK Cup 2019-2020 -- Engine Editorial](#)
- Taha1506** → [How to recognize "Standard dp" problems](#)
- AnonySharma** → [\[FIXED\] Codeforces Christmas Dark Theme](#)
- search_fool** → [Hackerrank test problem](#)
- Aloncf** → [Christmas theme doesn't playe well with Dark Reader](#)
- Endagorion** → [Codeforces Round #691, based on ByteDance — Moscow Workshops Online Contest](#)
- Endagorion** → [Codeforces Round #691 Editorial \(finished\)](#)
- Stepavly** → [Codeforces Round #690 \(Div. 3\) Editorial](#)
- generic_placeholder_name** → [Cheating during CF Educational Round 100](#)
- kyrros** → [Cscademy LCA problem doubts](#)
- sreeklgs** → [Counting arrays\(Help required in this problem\)](#)
- Morass-** → [Problem Topics](#)
- vovuh** → [Codeforces Round #674 \(Div. 3\) Editorial](#)
- smurfov.code** → [Help me with task for queries and long arithmetics](#)
- rum3r** → [Help needed in Number theory Problem!](#)
- bluemmb** → [Add contest from polygon to group](#)
- usernameon** → [Div 3 more popular than Div 2?](#)

[Detailed →](#)

Div. 2) will start.

Series of Educational Rounds continue being held as [Harbour.Space University](#) initiative! You can read the details about the cooperation between [Harbour.Space University](#) and Codeforces in the [blog post](#).

This round will be **rated for the participants with rating lower than 2100**. It will be held on extended ICPC rules. The penalty for each incorrect submission until the submission with a full solution is 10 minutes. After the end of the contest you will have 12 hours to hack any solution you want. You will have access to copy any solution and test it locally.

You will be given **6 or 7 problems** and **2 hours** to solve them.

The problems were invented and prepared by Roman **Roms** Glazov, Adilbek **adedalic** Dalabaev, Vladimir **vovuh** Petrov, Ivan **BledDest** Androsov, Maksim **NeOn25** Mescheryakov and me. Also huge thanks to Mike **MikeMirzayanov** Mirzayanov for great systems Polygon and Codeforces.

Also thanks to Nikolay **KAN** Kalinin for one of the problems' ideas.

Good luck to all the participants!

Our friends at Harbour.Space also have a message for you:



Hey Codeforces!

It's almost the Holiday season, and this year, we have an extra reason to celebrate — this December marks Harbour.Space's 5-year anniversary!

Looking back, we're especially thankful for the wonderful partnerships that have made our university what it is today.

Codeforces has been one of our key partners since the beginning, and we would like to thank the community for growing with us for the past 5 years.

You guys are rock stars, and we're excited to see where the future takes us both.

Best,
Harbour.Space University

Congratulations to the winners:

Rank	Competitor	Problems Solved	Penalty
1	heno239	6	174
2	Geothermal	6	178
3	stevenkplus	6	238
4	hank55663	5	87
5	neal	5	121

Congratulations to the best hackers:

Rank	Competitor	Hack Count
1	3.141592653	49:-3
2	sheaf	48:-17
3	adnan_toky	32:-2

4	_Backlight	30:-2
5	star_xingchen_c	27:-1

1083 successful hacks and 1034 unsuccessful hacks were made in total!

And finally people who were the first to solve each problem:

Problem	Competitor	Penalty
A	I_love_Anya_Prokopyeva	0:01
B	System_2020	0:03
C	Geothermal	0:11
D	peti1234	0:06
E	CoderAnshu	0:23
F	heno239	1:13


UPD: Editorial is out

[Read more »](#)

 Announcement of Educational Codeforces Round 100 (Rated for Div. 2)


 **+407** 

 [pikmike](#)

 4 days ago

 [275](#)

Codeforces Round #690 (Div. 3)

By [Supermagzzz](#), [history](#), 6 days ago, translation, 

Hello, Codeforces!

<almost-copy-pasted-part>

Hello! [Codeforces Round #690 \(Div. 3\)](#) will start at [Tuesday, December 15, 2020 at 17:35](#). You will be offered 6 problems (one of them is split into two subtasks) with expected difficulties to compose an interesting competition for participants with ratings up to 1600. However, all of you who wish to take part and have a rating 1600 or higher, can register for the round unofficially. The round will be hosted by rules of educational rounds (extended ACM-ICPC). Thus, during the round, solutions will be judged on preliminary tests, and after the round it will be a 12-hour phase of open hacks. I tried to make strong tests — just like you will be upset if many solutions fail after the contest is over.

You will be given 6 problems and 2 hours to solve them.

Note that **the penalty** for the wrong submission in this round (and the following Div. 3 rounds) is **10 minutes**.

[Remember](#) that only the trusted participants of the third division will be included in the official standings table. As it is written by link, this is a compulsory measure for combating unsporting behavior. To qualify as trusted participants of the third division, you must:

- take part in at least two rated rounds (and solve at least one problem in each of them),
- do not have a point of 1900 or higher in the rating.

Regardless of whether you are a trusted participant of the third division or not, if your rating is less than 1600, then the round will be rated for you.

The problems for this round were invented by **MikeMirzayanov** and prepared by me [Supermagzzz](#) and [Stepavly](#)

Thanks to **MikeMirzayanov** for platforms and coordination of our work. Thanks to [Sho10](#), [kocko](#), [brian](#), [Crazy_hedgehog](#), [manta1130](#), [Rox](#), [Gassa](#) for help in round preparation and testing the round.

Good luck!

</almost-copy-pasted-part>


UPD: Editorial is published

[Read more »](#)

 Announcement of Codeforces Round #690 (Div. 3)

 +476 

 [Supermagzzz](#)

 6 days ago

 244

ICPC NERC Huawei Challenge — Cloud Scheduling Challenge

By NercNews, 2 weeks ago, 

Hello everyone!

We are thrilled to invite you to the great event —
ICPC NERC Challenge
powered by Huawei 12
— 20 December 2020.

[Join to Challenge](#)



powered by



This contest is based on some real problems from Huawei Cloud team. The task is simplified, but still very challenging. You

need to find a schedule for a variety of realistic problem instances, where the goal will be minimizing two different cost functions. There is a non-trivial tradeoff, decision you have to make, on how to choose what is best for a particular case. You will be provided with examples that can help you to tackle the problem. A good solution may also require diving deeper into the nature of the problem, and creating some dataset of your own. We believe there are multiple approaches one can try here, and some crossover of the algorithms will also increase your chances to win. Good luck, we hope this will be fun!

The ICPC NERC Cloud Scheduling Challenge powered by Huawei will take place online during the week December 12-20. This round is unrated for all participants. Everybody is welcome to participate. It is an individual competition. Participants will be divided into two groups: Northern Eurasia Contestants 2020 (all subregions) and all other Participants. If you are a NERC 2020 contestant and you want to take part in ICPC NERC Challenge, link your ICPC account to the Codeforces account here: <https://codeforces.com/settings/general>

The top-scoring participants will also receive great prizes. Huawei will provide prizes to the 12 winners in both groups accordingly:

- 1-4th place — HUAWEI P40 PRO
- 5-8th place — HUAWEI MATEPAD PRO LTE
- 9-12th place — HUAWEI WATCH GT 2E



In this video Andrey Tikhonov, the co-author of Cloud Scheduling Challenge will explain the basics of the task and describe some special cases and examples:



Good luck to all participants!

[Read more »](#)

Announcement of NERC Challenge 2020: Marathon

icpc, nerc, huawei

+312

[NercNews](#)

2 weeks ago

52

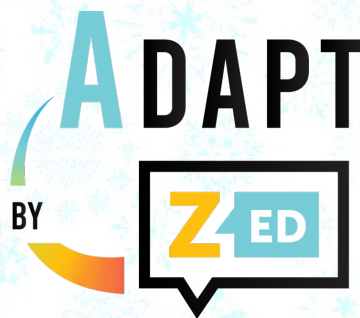
Codeforces Round #689 (Div. 2), based on Zed Code Competition 2020

By [Vladik](#), 10 days ago, translation,

Hi **Codeforces**!

I am glad to announce and invite you to [Codeforces Round #689 \(Div. 2, based on Zed Code Competition\)](#), which will be held on [Friday, December 11, 2020 at 17:35](#).

We want to offer you to solve 6 problems taken from the Zed Code Competition 2020, which was held as part of the [Adapt by Zed](#) conference powered by [EPAM Systems](#).



This round will be rated for the participants with rating lower than 2100.

- The authors of the round are: Aliaksandr [AleXman111](#) Kryvasheyeu, Aliaksandr [sdryapko](#) Drapko, Aliaksei [netman](#) Vistiazh and me.
- The round was coordinated by Vladimir [vovuh](#) Petrov and Nikolay [KAN](#) Kalinin.
- The round was tested by: [pikmike](#), [mohammedehab2002](#), [thenymphsofdelphi](#), [_overrated_](#), [BRCode](#), [morzer](#), [postscript](#), [ssense](#), [SlavicG](#), [Himanshu_77](#), [manikjain4](#), [Coder-HVZ](#), [Rox](#), [hloya_ygrt](#), [kefaa2](#), [Wind_Eagle](#), [ReD_AwHiLe](#), [Gassa](#), [namanbansal013](#), [saurabhshadow](#) and [andrew](#).
- And, of course, thank you very much Mike [MikeMirzayanov](#) Mirzayanov for creating the polygon and codeforces platforms.

Thanks a lot for your contribution to the preparation of the round! Good luck with the competition!

UPD: The scoring distribution is **500 — 1000 — 1250 — 1500 — 2250 — 2750**.

Congratulations to the winners of **div 2**:

1. [yash_daga](#)
2. [AiriKatagiri](#)
3. [tejas10p](#)
4. [RNG-Ming](#)
5. [Kalecgos](#)

as well as **div 1** winners:

1. [neal](#)
2. [Geothermal](#)
3. [LayCurse](#)

4. **emthrm**
5. **hank55663**

Thank you all for participating! ([editorial](#))


[Read more »](#)

 Announcement of Codeforces Round #689 (Div. 2, based on Zed Code Competition)

 zed code competition, epam

 **+328** 

 [Vladik](#)

 10 days ago

 [263](#)

Codeforces Global Rounds 2020: Final Results

By **MikeMirzayanov**, 12 days ago, 

In 2020, with the support of XTX Markets, 6 rounds of the Codeforces Global Rounds were held. Each round was common for both divisions. All such rounds were rated for all participants. At each such round, 50 brand T-shirts were handed out, and we gave T-shirts to all problem writers!


I say a big thank you to XTX Markets (and personally to Yuri Bedny and Alexander Gerko) for supporting Global Rounds. Without your help, we could not host them! I sincerely admire companies like these who come to support and develop the community that some of their employees come from. It will be great if other companies follow the example and also offer their help. We need it!

The prizes for the 6-round series in 2020:

- In each round, top-100 participants get points according to the [table](#).
- The final result for each participant is equal to the sum of points he gets in the four rounds he placed the highest.
- The best 20 participants over all series get sweatshirts and place certificates.


Final results (and congratulations!):

[Read more »](#)

 global rounds, 2020, gr, xtx


 **+317** 

 [MikeMirzayanov](#)

 12 days ago

 [13](#)

AI Cup 2020

By **kuviman**, 13 days ago, 

Hello everyone!

[AI Cup 2020](#) — the annual artificial intelligence programming championship by Mail.Ru Group is already running.



AI Cup — open artificial intelligence programming contest. Test yourself writing a game strategy! It's simple, clear and fun!

This year's theme is — RTS. We are waiting for you on [our site](#)! The site is already open, you can start implementing your strategies.

Ninth AI Cup championship is named CodeCraft. You are to program an artificial intelligence to control a number of units, gather resources, build your settlement and attack your enemies. Your strategies will compete with each other in the Sandbox and the championship. Currently available programming languages: C++, C#, F#, D, Go, Java, Kotlin, Scala, Python, Rust. The Sandbox is already open. Good luck!

Schedule

- Sandbox: already open for everyone.
- Round 1: December 12-13.
- Round 2: December 19-20.
- Finals: December 26-28.

Prizes

In the past years, the winners have received prizes, like MacBooks, iPads, watches and hard drives. In addition, we presented 60 hoodies and 360 T-shirts.

Unfortunately, the participants of the previous AI Cup received T-shirts only almost a year later (we delivered the prizes). In a pandemic, we were powerless and not ready.

In this regard, we thought to cancel the merch in this competition, but the community did not receive this news well. "No promo codes or other virtual prizes needed, we need T-shirts and hoodies" — quote from the community.

Change 1: the prizes are now not physical, but cash. This year's winners will receive:

- 1st place — 250,000 rubles (about \$3364).
- 2nd place — 200,000 rubles (about \$2691).
- 3rd place — 150,000 rubles (about \$2018).
- 4th place — 125,000 rubles (about \$1682).
- 5th place — 100,000 rubles (about \$1345).
- 6th place — 75,000 rubles (about \$1009).

Sandbox winners (also 6 people) will receive 10,000 rubles each (about \$135). Amounts are after taxes. We have significantly increased the prize pool.

Change 2: T-shirts and hoodies will be available, but delivery will not be until February. If you don't want to wait, you can exchange your promotional gift for a promotional code in Mail.ru Group services (cloud, etc.).

All participants in Round 2 will receive T-shirts, and the finalists will receive hoodies.

Begin from the [Quick start guide](#). Writing a simple strategy is not hard at all!

[Read more »](#)

▲ +153 ▼

👤 [kuviman](#)

📅 13 days ago

💬 18

Codeforces Global Round 12

By [Monogon](#), [history](#), 3 weeks ago, 🇬🇧

¡Buenos días! (That's Spanish for "what's up homies")

On [Sunday, December 6, 2020 at 17:35](#) we will host [Codeforces Global Round 12](#).

It is the sixth round of a 2020 series of [Codeforces Global Rounds](#). The rounds are open and rated for everybody.

The prizes for this round:

- 30 best participants get a t-shirt.
- 20 t-shirts are randomly distributed among those with ranks between 31 and 500, inclusive.

The prizes for the 6-round series in 2020:

- In each round top-100 participants get points according to the table.
- The final result for each participant is equal to the sum of points he gets in the four rounds he placed the highest.



- The best 20 participants over all series get sweatshirts and place certificates.

Thanks to XTX, which in 2020 supported the global rounds initiative!

The problems were written and prepared by smart Cuban **Devil** and stupid Americans **fivefourthreeone** and **Monogon**.

We would like to distribute our thanks equally to the following people who made this round possible.

- **Ernestico**, **McDic**, **Ari**, **gamegame**, **namanbansal013**, **growup974**, **balbit**, **dorijanlendvaj**, **postscript**, **saaurabhshadow**, **arvindr9**, **kcllee2172**, **AliShahali1382**, **BRCode**, **ffao**, **Kuroni** for testing the round and ~~roasting~~ providing valuable feedback to the problems. Testers orz!
- **antontrygubO_o** for inspiration!
- **isaf27** for excellent coordination of the round, and improving several problems!
- **MikeMirzayanov** for the amazing Codeforces and Polygon platforms!
- You, for participating! Your participation will directly contribute to the end of the long-standing Cuban-American rivalry, and will lead to peace on Earth.

You will have 3 hours to solve 8 problems (and 2 subtasks). If you want to lose rating, then we encourage you not to read all the problems.

May rating be distributed from each according to his ability, to each according to his needs!

UPD: Here's the score distribution. Good luck, have fun!

500 – 750 – (1000 + 750) – 1750 – 2500 – 2750 – 3750 – (2750 + 1750)

UPD: Hope you enjoyed the problems! [Editorial](#) is posted.

UPD: System testing finished, congrats to the winners!

1. **Benq**
2. **tourist**
3. **jiangly**
4. **izone**
5. **ecnerwala**
6. **Um_nik**
7. **ksun48**
8. **kefaa2**
9. **maroonrk**
10. **yosupo**

[Read more »](#)

 Announcement of Codeforces Global Round 12

 [codeforces global rounds](#), [global round 12](#)

 **+1239** 

 [Monogon](#)

 3 weeks ago

 **266**

← **1** 2 3 ... 178 179 →

Processing math: 100%

[Codeforces](#) (c) Copyright 2010-2020 Mike Mirzayanov
The only programming contests Web 2.0 platform
Server time: Dec/20/2020 19:28:16 (g2).
Desktop version, switch to [mobile version](#).
[Privacy Policy](#)

No such contest

Supported by



ITMO UNIVERSITY