

Not All Instances of Hard Problems are Difficult[†]

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[†]and they can be a lot of fun

In this talk, we explore some problems from Advent of Code 2023 and the techniques that make these problems simpler than they first appear.

We will also look at some problems just for fun.

What is AoC?

Advent of Code is an annual series of small programming puzzles for a variety of skill sets and skill levels in any programming language you like.

It runs from December 1st to December 25th each year (since 2015).

Here are the current completion statistics for each day. Gold indicates users that have completed both parts of a puzzle, while silver indicates users that have completed only the first half. Each * or * star represents up to 7755 users.

25	11188	3070	***
24	12504	5014	***
23	15233	2992	***
22	16484	1001	****
21	14936	10316	****
20	18964	4486	****
19	23210	7295	****
18	25496	4988	*****
17	24701	1128	*****
16	36168	1061	*****
15	41723	4250	*****
14	37274	7582	*****
13	38957	5309	*****
12	31750	14617	*****
11	58390	2438	*****
10	49160	17346	*****
9	77739	1283	*****
8	75250	14948	*****
7	83178	7468	*****
6	104874	1985	*****
5	81386	31578	*****
4	132136	18012	*****
3	132321	20318	*****
2	199469	9535	*****
1	234418	75774	*****

adventofcode.com/2023/stats

Private Leaderboard

This is the private leaderboard of Will for Advent of Code 2023. You can use a different [Ordering], manage your [Private Leaderboards], use an [API], or switch to another [Event].

Gold indicates the user got both stars for that day, silver means just the first star, and gray means none.
















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1111111111222222
1234567890123456789012345
1) 478 ***** ZeroTau (AoC++)
2) 420 ***** Will (AoC++)
3) 352 ***** Sgr A8
4) 182 ***** one-reader
5) 53 ***** Austin Stortzum
6) 37 ***** zemkat
7) 25 ***** Jack Schmidt
8) 7 ***** Abby Gamboa
9) 2 ***** Guyfee
10) 0 ***** (anonymous user #3280719)
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Global Leaderboard

Below is the Advent of Code 2023 overall leaderboard; these are the 100 users with the highest total score. Getting a star first is worth 100 points, second is 99, and so on down to 1 point at 100th place.

You can change how you appear here on the [\[Settings\]](#) page. You can also view your own [\[Personal Times\]](#) or use a [\[Private Leaderboard\]](#).

1)	3257		xiaowucl
2)	3174		tckmn
3)	2909		5space (AoC++)
4)	2486		nthistle (AoC++) (Sponsor)
5)	2484		jonathanpaulson (AoC++)
6)	2476		Antonio Molina (AoC++) (Sponsor)
7)	2404		dan-simon
8)	2370		bluepichu
9)	2285		leijurv (AoC++)
10)	2241		boboquack
11)	2226		hyper-neutrino
12)	2198		D. Salgado
13)	2092		Ian DeHaan
14)	2046		Noble Mushtak
15)	2034		Anish Singhani (AoC++)

adventofcode.com/2023/leaderboard

Why do contests?

- Fun
- Learning
- Community
- Profit?

Once you see it...



Questions?

This talk available at github.com/ZeroTau/AoC2023Talk

Thank You!