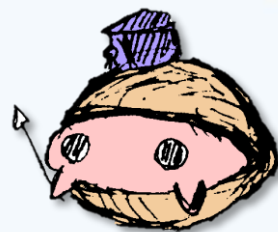


アルゴリズム勉強会 第1回



アルゴリズムって？

- コンピュータを使ってある目的を達成するための処理手順
- 問題を解くための方法や手順

【例】

素数判定アルゴリズム

偶数判定アルゴリズム

数字を降順/昇順に並べ替えるアルゴリズム（ソート）

アルゴリズムは、**フローチャート**で記述されるよ

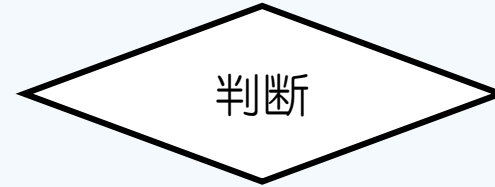


フローチャート（流れ図）



端子

Start, Endなど



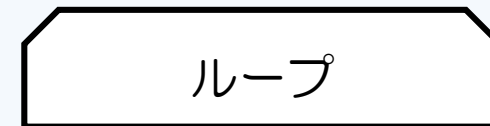
判断

ifやswitchによる分岐



処理

代入や四則演算など



ループ

forやwhileによる繰り返し



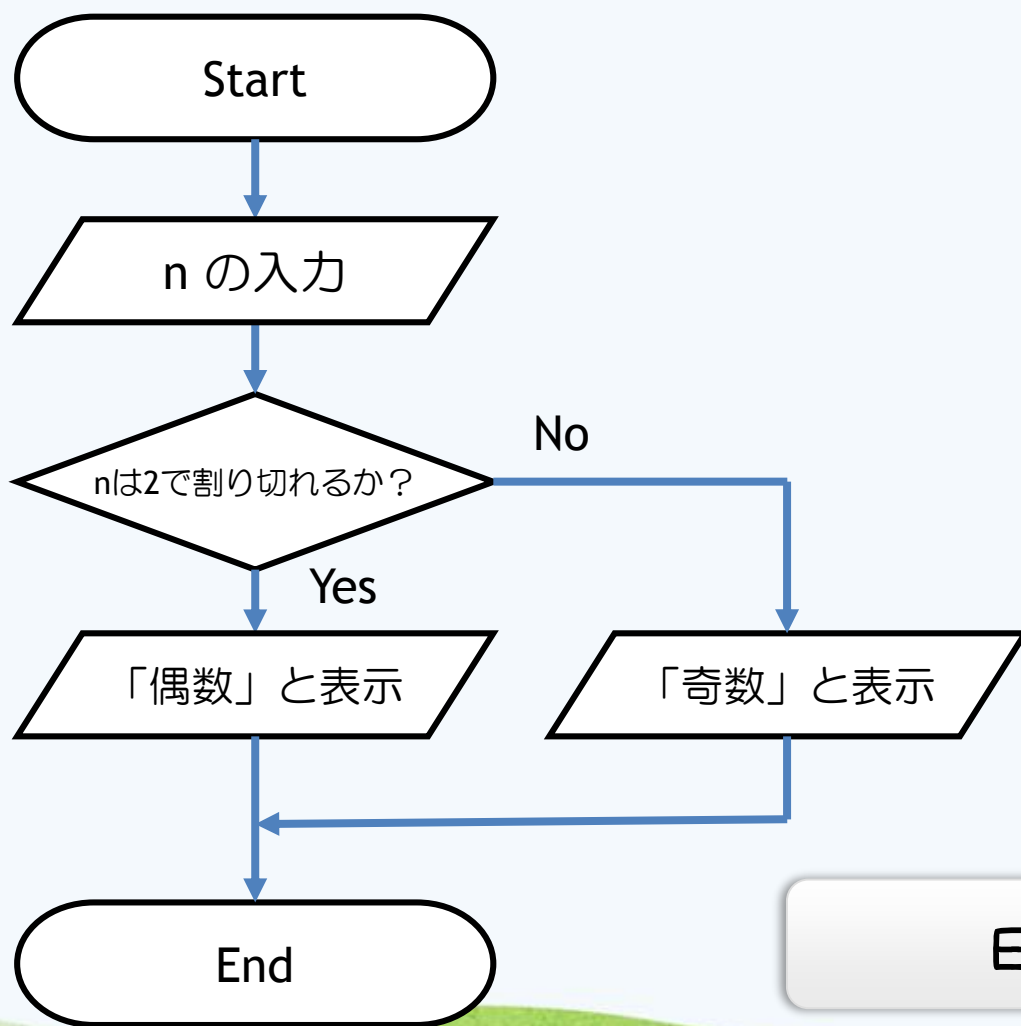
入出力

printf()やscanf()など

これだけ覚えれば十分！



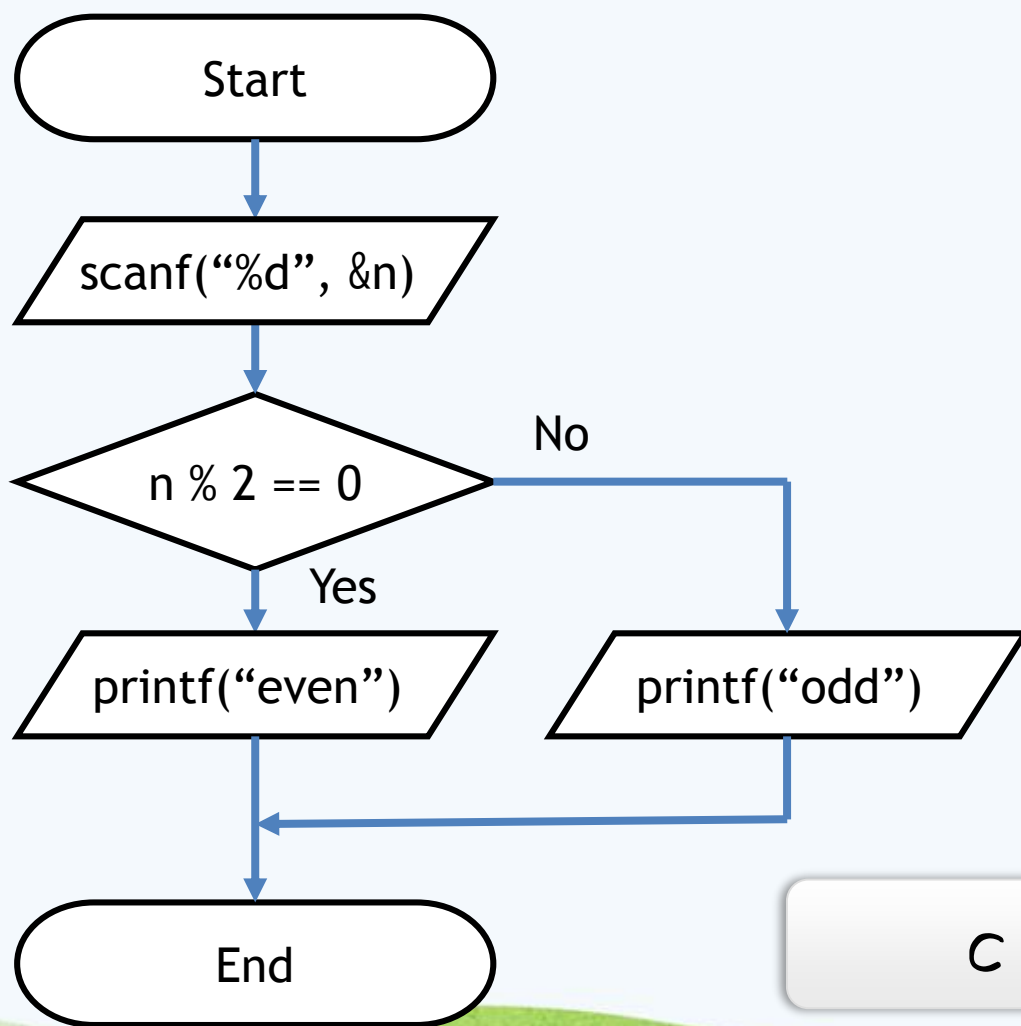
偶数判定アルゴリズムのフローチャート



日本語での表現



偶数判定アルゴリズムのフローチャート



C言語っぽい表現



プログラミングコンテスト

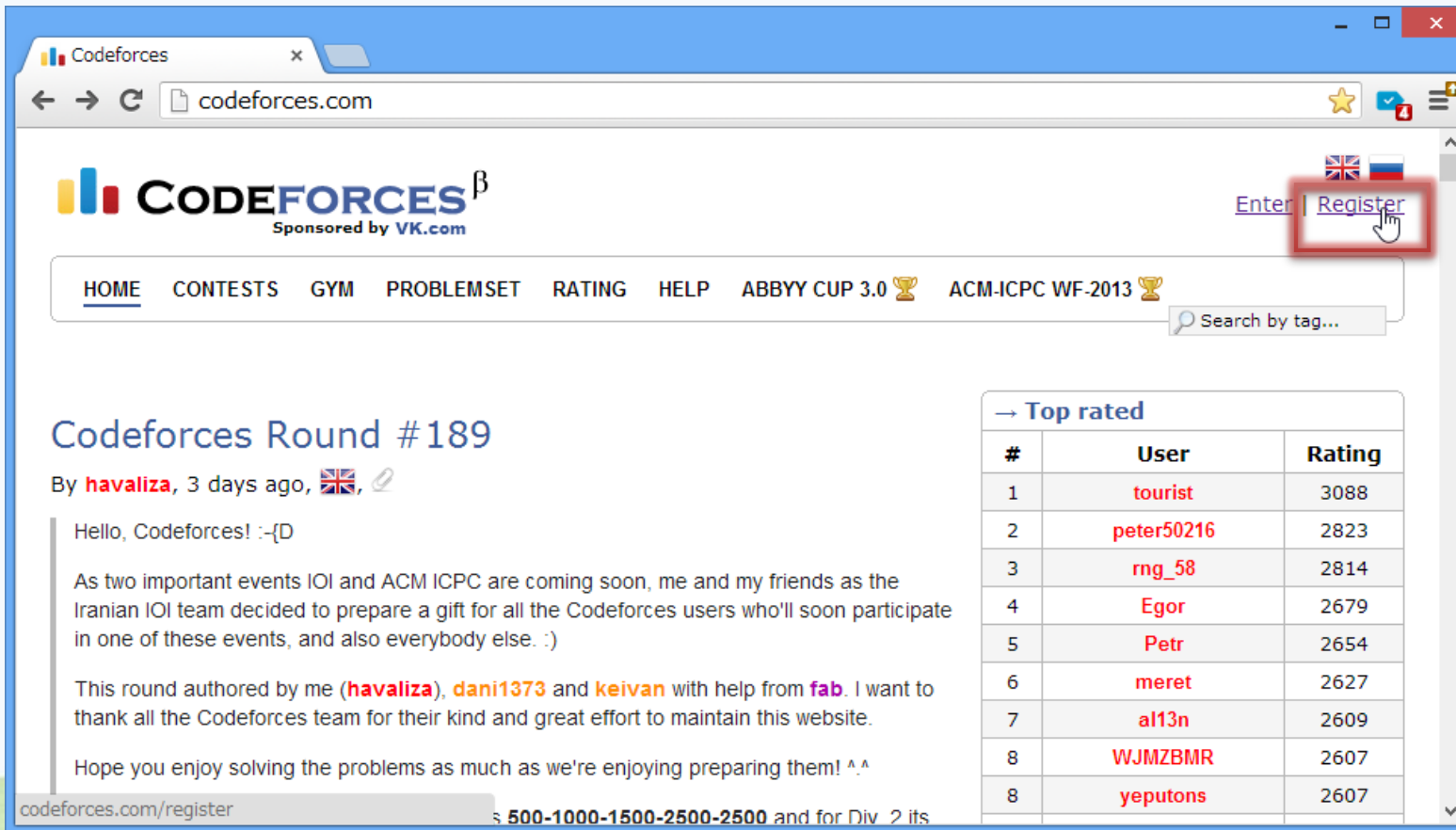
- TopCoder
- Codeforces
- AtCoder
- CodeChef
- Google Code Jam

詳細は割愛



Codeforces

<http://codeforces.com/>



The screenshot shows the Codeforces website homepage. At the top, there's a navigation bar with links: HOME, CONTESTS, GYM, PROBLEMSET, RATING, HELP, ABBYY CUP 3.0, and ACM-ICPC WF-2013. Below this is a search bar labeled "Search by tag...". The main content area features a post titled "Codeforces Round #189" by user "havaliza", dated "3 days ago". The post text says: "Hello, Codeforces! :-{D As two important events IOI and ACM ICPC are coming soon, me and my friends as the Iranian IOI team decided to prepare a gift for all the Codeforces users who'll soon participate in one of these events, and also everybody else. :) This round authored by me (havaliza), dani1373 and keivan with help from fab. I want to thank all the Codeforces team for their kind and great effort to maintain this website. Hope you enjoy solving the problems as much as we're enjoying preparing them! ^.^". To the right of the post is a table titled "→ Top rated" listing the top 8 users and their ratings.

#	User	Rating
1	tourist	3088
2	peter50216	2823
3	rng_58	2814
4	Egor	2679
5	Petr	2654
6	meret	2627
7	al13n	2609
8	WJMZBMR	2607
8	yeputons	2607

Register in Codeforces

Handle

Choose your username (nickname) on Codeforces. Be careful you will not be able to change it later.

Email

Password

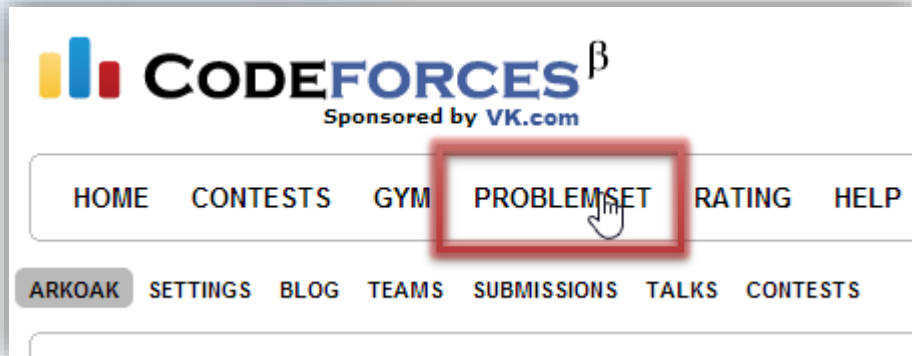
Password should contain at least five characters

Confirm Password

[Use OpenID](#) [Use Gmail](#)



Codeforces



The image shows a list of problems on the Codeforces website. The 'Solved' column is highlighted with a red rectangle and a mouse cursor. The table has columns for problem number, name, tags, and solved count.

#	Name	Tags	Solved
320B	Ping-Pong (Easy Version)	dfs and similar, graphs	x754
320A	Magic Numbers	brute force, greedy	x1511
319E	Ping-Pong	data structures	x8
319D	Have You Ever Heard About the Word?		x26

OOA...簡単な問題

OOB...ちょっと難しい問題

OOC...けっこう難しい問題

以下略

The image shows a list of problems on the Codeforces website. The 'Watermelon' problem is highlighted with a red rectangle and a mouse cursor. The table has columns for problem number, name, tags, and solved count.

#	Name	Tags	Solved
1A	Theater Square	greedy, math	x9489
4A	Watermelon	math	x7838
158A	Next Round	implementation	x6971

Problemの見方

PROBLEMS SUBMIT STATUS STANDINGS CUSTOM TEST

A. Watermelon

time limit per test: 1 second

memory limit per test: 64 megabytes

input: standard input

output: standard output

One hot summer day Pete and his friend Billy decided to buy a watermelon. They chose the biggest and the ripest one, in their opinion. After that the watermelon was weighed, and the scales showed w kilos. They rushed home, dying of thirst, and decided to divide the berry, however they faced a hard problem.

Pete and Billy are great fans of even numbers, that's why they want to divide the watermelon in such a way that each of the two parts weighs even number of kilos, at the same time it is not obligatory that the parts are equal. The boys are extremely tired and want to start their meal as soon as possible, that's why you should help them and find out, if they can divide the watermelon in the way they want. For sure, each of them should get a part of positive weight.

Input

The first (and the only) input line contains integer number w ($1 \leq w \leq 100$) — the weight of the watermelon bought by the boys.

Output

Print `YES`, if the boys can divide the watermelon into two parts, each of them weighing even number of kilos; and `NO` in the opposite case.

Sample test(s)

input
8
output
YES

Note

For example, the boys can divide the watermelon into two parts of 2 and 6 kilos respectively (another variant — two parts of 4 and 4 kilos).



A. Watermelon

ある暑い夏の日、ピートとビリーはスイカを買うことにしました。彼らは、一番大きくて食べ頃のスイカを選びました。そのスイカの重さを計ると、 W kgでした。彼らは喉が渴いて死にそうなので、急いで家に帰り、スイカを割ろうとしましたが、難しい問題に直面してしまいます。

ピートとビリーは偶数の猛烈なファンなので、割れたスイカのそれぞれの部分がどちらも偶数 kgであるようにしたいのです。それぞれの部分の重さは等しくなくても構いません。彼らはものすごく疲れていて、できるだけ早くスイカを食べたいので、あなたは彼らが望みどおりにスイカを分けられるか、教えてあげてください。もちろん、それぞれの部分の重さは、正の重さでなければなりません。

入力：初めの（そして唯一の）入力行は、整数 w ($1 \leq w \leq 100$) です。

出力：もしスイカをいずれも偶数の重さに分けられるなら YES を表示し、そうでない場合は NO を表示して下さい。

問題文を単純化して考えよう



解答の提出

PROBLEM: **SUBMIT** STATUS STANDINGS CUSTOM TEST

Submit solution

Codeforces Beta Round #4 (Div. 2 Only)

Problem: 4A - Watermelon

Language: GNU C 4

Source code:

Position: Ln 1, Ch 1 Total: Ln 1, Ch 0

☒ Toggle editor

Or choose file: ファイルを選択 選択されていません

Submit

→ Submit?

Language: GNU C 4

Choose file: ファイルを選択 選択されていません

Submit 選択されていません

→ Problem tags

どっちでもok





おしまい