

# **Exercises** — Display square

version #



ASSISTANTS C/UNIX 2022 <assistants@tickets.assistants.epita.fr>

# Copyright

This document is for internal use at EPITA (website) only.

Copyright © 2021-2022 Assistants <assistants@tickets.assistants.epita.fr>

### The use of this document must abide by the following rules:

- ▶ You downloaded it from the assistants' intranet.\*
- ▷ This document is strictly personal and must **not** be passed onto someone else.
- ▷ Non-compliance with these rules can lead to severe sanctions.

#### **Contents**

1	Disp	splay square															3																							
	1.1	Goal																																						3

<sup>\*</sup>https://intra.assistants.epita.fr

## 1 Display square

#### Files to submit:

· display\_square/display\_square.c

Authorized functions: You are only allowed to use the following functions:

putchar(3)

Authorized headers: You are only allowed to use the functions defined in the following headers:

- assert.h
- errno.h
- err.h
- · stddef.h

#### 1.1 Goal

Write a function that displays a square on the standard output using putchar.

```
void display_square(int width)
```

The square must be written with multiplication characters (\*) and filled with spaces. Since characters in your shell are not squares but rectangles, here are a few tricks to display good looking squares:

- The width of your square must be an odd number. If the parameter is even, increment it.
- The number of rows must be (n+1)/2, with n the width of the square.

If  $n \le 0$ , nothing should be displayed. You must add a line break at the end of your square.

Output of display\_square(6):

```
******

* *

* *

******
```

Output of display\_square(11):

It is my job to make sure you do yours.