



# EXERCISES — Pine tree

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version #



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# 1 Pine tree

**Files to submit:**

- pine/pine.c

**Main function:** none

**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:

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

## 1.1 Goal

Implement the function with the following prototype:

```
int pine(unsigned n)
```

It prints on the standard output a pine using \* characters. `n` is the height of the pine and is always at least 3. The trunk of the tree is  $(n/2)$  lines high but always on one column. The tree must be followed by a line feed. `pine` must return 1 if `n` is strictly below 3, or 0 otherwise.

## 1.2 Examples

In the following examples,

- > represents the beginning of a line
- \$ represents the end of a line

These two symbols must **not** be printed.

`pine(5)` prints:

```
>  *$
>  ***$
>  *****$
>  *****$
>*****$
>  *$
>  *$
```

`pine(4)` prints:

```
> *$  
> ***$  
> *****$  
>*****$  
> *$  
> *$
```

pine(3) prints:

```
> *$  
> ***$  
>*****$  
> *$
```

*It is my job to make sure you do yours.*