



EXERCISES — Integer Square Root

version #



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1 Integer Square Root

Files to submit:

- int_sqrt/int_sqrt.c

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

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

1.1 Goal

Write a function that computes the truncated square root of n . Return -1 if n is negative.

```
int int_sqrt(int n)
```

One method could be to iterate from 0 to n and return the result when your iterator multiplied by itself is greater than n . Also note that

$$(\text{sqrt}(x))^2 \leq x \leq ((\text{sqrt}(x) + 1)^2)$$

You can also check out the Newton's method if you want more precise information about square root computing.

It is my job to make sure you do yours.