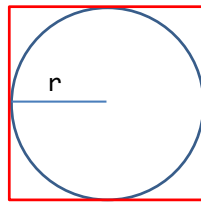


**Exercise 1 (10 points)** - can be done in pair or individually

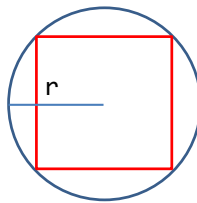
1. The first lines of all source files must be comments containing names & IDs of all members. Also create file `readme.txt` containing names & IDs of all members
2. Put all files (source, input, `readme.txt`) in folder `Ex1_xxx` where `xxx` = ID of the group representative, i.e. your source files must be in package `Ex1_xxx` (assumedly in Maven's `src/main/java`). Input files must be read from this path
3. The group representative zips `Ex1_xxx` & submits it to Google Classroom. The other members submit only `readme.txt`. Email submission is not accepted

=====

1. Read a radius ( $r$ ) of a circle from user
2. Find the width & area of the smallest square that this circle can fit in
3. Find the width & area of the biggest square that can be fitted in this circle



(1) smallest square



(2) biggest square

4. The program must be able to loop & ask for another input from user

**Note:** Use method `double Math.sqrt(double x)` to get the square root of  $x$

```
--- exec-maven-plugin:3.0.0:exec (default-cli) @ solutions ---

Enter positive radius (or <=0 to exit) = 
10
Smallest square >> width = 20.00, area = 400.00
Biggest square >> width = 14.14, area = 200.00

Enter positive radius (or <=0 to exit) = 
15
Smallest square >> width = 30.00, area = 900.00
Biggest square >> width = 21.21, area = 450.00

Enter positive radius (or <=0 to exit) = 
-1

-----
BUILD SUCCESS
-----
```

**Note**  
Prompt message should end with `\n`, so that input is read in the next line. Otherwise, the program will just wait for input without showing prompt message