GEBZE TECHNICAL UNIVERSITY

DEPARTMENT OF COMPUTER ENGINEERING

CSE102 HOMEWORK #01

Due Date: 09.03.2018 09:00 AM

Write a complete program that calculates

- the area of the largest circle that fits inside a rectangle,
- the area of the largest square that fits inside the rectangle,
- the area of the smallest circle that surrounds the same rectangle,
- the area of the smallest square that surrounds the same rectangle.
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The program gets edges of the rectangle and print outs the area of each circle and square.

The program must use all these functions listed below.

```
double circle_area(double radius);
double calc_hypotenuse(int side1, int side2);
double calc_radius_of_smallest_circle(int side1, int side2);
double calc_radius_of_largest_circle(int side1, int side2);
double calc_area_of_smallest_circle(int side1, int side2);
double calc_area_of_largest_circle(int side1, int side2);
double calc_area_of_smallest_square(int side1, int side2);
double calc_area_of_largest_square(int side1, int side2);
double calc_area_of_square (int side);
void display_results(void);
```

The program must use sqrt() and pow() functions whenever necessary.
PI = 3.14

Submission Rule: student_no.zip

Grading Policy:

- If you do not apply submission rule, you will get –20 points.
- In case of cheating, each participant gets –100.
- A code which does not compile will be graded up to 30 points.

Asking Rules:

- You can ask when you need help. (Turkish or English)
- Describe your problem explicitly.
- And write your solution (even half) or describe your idea. If you have no idea or even half solution don't ask, make research in the internet or in the books.
- Please be polite, constructive.
- If you don't get an answer in 48 hour check the rules.

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