

# CSE102

## HW02

## Part 1 50pts

In this part you will write a function that plots the graph of a given function `int fTheFunction(int x, int functionNumber)`. `f` is a hidden function that takes an integer and returns an integer. There are 5 such functions that your function is going to be tested with.

Your function should plot x and y axis lines also.

First function is  $f(x)=2*x$  and its graph is in the sample output below.

Signature

```
int fTheFunction(int x,int functionNumber)
void drawFunction(int xAxis,int yAxis,int functionNumber);
```

## Sample Usage

```
result = fTheFunction(x,functionNumber )
(x=4; functionNumber=1; result=8)
drawFunction(xAxis,yAxis,functionNumber);
(xAxis=40 ; yAxis=40 ; functionNumber=1)
```

## Output

## Part 2

In this part you will write a function to draw a simple car that contains two stacked rectangles and two circles as wheels.

### a)20pts

Write a function that draws rectangle.

### b)20pts

Write a function that draws two circles near each other.

### c)10pts

Write a function to draw a car using two functions above.

### Signature

---

```
void drawRectangle(int width,int height, int startingPoint, int printLastLine);
void drawDoubleCircle(int radius, int startingPoint , int whellDistance);
void drawCar();
```

### Sample Usage

---

```
drawRectangle (width,height, startingPoint, printLastLine);
( width:10, height:40, startingPoint:11, printLastLine:0)
drawDoubleCircle(radius, startingPoint ,whellDistance);
( radius:4, startingPoint:7 whellDistance:12)
drawCar(); (Output of this function as below)
```

### Return Value

---

```
*****
*                                     *
*                                     *
*                                     *
*                                     *
*                                     *
*                                     *
*                                     *
*                                     *
*****
*                                     *
*                                     *
*                                     *
*                                     *
*                                     *
*                                     *
*                                     *
*****
      *                               *
    * * * * *                     * * * * *
  * * * * * * *                   * * * * * * *
* * * * * * * * *                 * * * * * * * * *
* * * * * * * *                   * * * * * * *
* * * * * * *                     * * * * *
  * * * * *                       * * * * *
    *                               *
      *                               *
```