

Replacement Assignment 2

100 Points (Due: 5:00PM Monday December 12, 2016)

PROBLEM #1: (50 points)

Income of a project over a 10-year period is given in the table below.

Year	End of Year Payment
0	380
1	420
2	Last 3 digit of your student ID
3	510
4	0
5	0
6	290
7	400
8	0
9	Last 3 digits of your birth year
10	320

For the interest rate of 12% compounded annually, plot the cash flow diagram and perform the following steps for the project:

1. Calculate the present worth of the project using formulas for factors.
2. Calculate the present worth of the project using tables for factors and compare with answer in in part 2. Explain the reason for difference, if any.
3. Calculate future worth of the project at the end of year 10 using tables.
4. Calculate future worth of the project at the end of year 5 using the calculated value in part 3.
5. Calculate the equivalent annual payment of the project over 10 years.

PROBLEM #2: (25 points)

Using Notepad, write a html document with the following design:

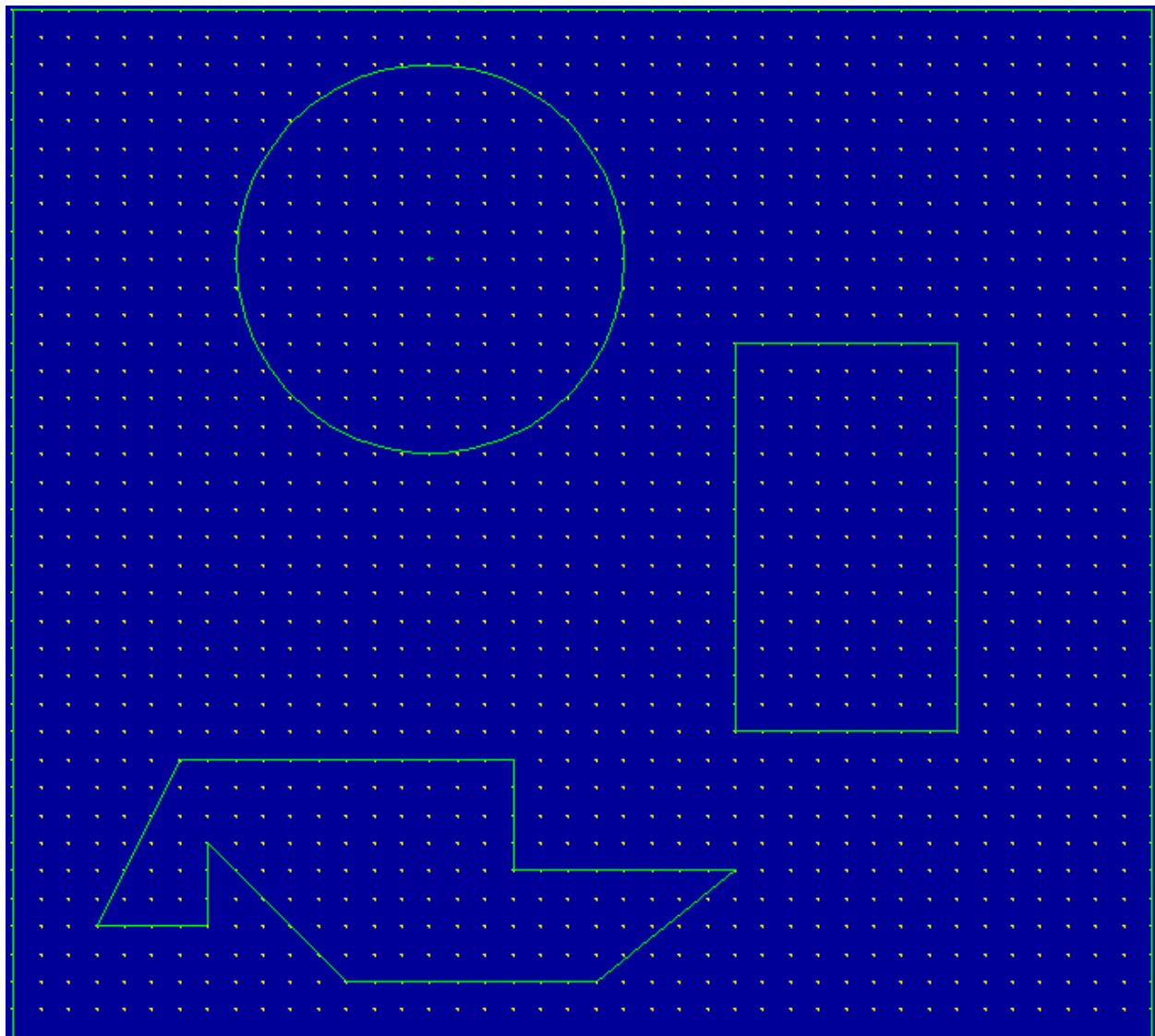
File name: ramap.html

Background color: full red + no green + full blue

Text: Click on any shape to go to a different web site.

Image: MyShapes.jpg located at the same folder that ramap.html is located

The general shape of the image is:



Note that you cannot use the image above directly to find the coordinates for MAP. Here is how to find them:

The distance between any two yellow dots is 10 pixels. So you actually have count the dots to find out the coordinates. For example, to find out the coordinate of the upper-right corner of the rectangle begin counting from (0,0) point. The corner point is 34 pixels to the right away and 12 pixels down. So, the coordinate of the point is (340, 120). Both image and text should be centered. The text should be below the images.

PROBLEM #3: (25 points)

Write a C++ program that when you run it you will get the results shown below. Red items are user input, yellow ones are the ones that computer processes based on your input and white ones are computer statements.

```
Hello,  
I am Computer. What is your name?  
John  
Nice to meet you John. What is the first digit of your phone number  
from the left?  
4  
Thank you. What is the second digit of your phone number from the  
left?  
4  
That is great. Could you please enter the third digit of your phone  
number from the left?  
3  
Wow! 443.  
Did you know that if you add those digits you will get 11?  
If you multiply them, you will get 48.  
Also, if you divide 443 by 48 you will get 9.229.  
Aren't you impressed?  
yes  
Good bye John
```