

Name, Surname :  
 Number :  
 Course Code : SEN114  
 Course Name : Computer Programming I  
 Exam :  Midterm  Make-up  Final  
 Date : 17.11.2016



Please make sure to write your name and student number on each paper that you have used

Question Number	1(30p)	2(20p)	3(10p)	4(30p)	5(10p)	6(1p)	Total
Mark							

Note:

- 1-Exam duration is 60 minutes only.
- 2- You dont get any other paper. Please use your paper efficiently!
- 3-You are not permitted to carry your mobile phone into the exam venue even if it is switched off.

<p>1-(30p)computes compound interest using the for statement. Consider the following problem statement:          Example: A person invests \$1000.00 in a savings account yielding 5% interest. Assuming that all interest is left on deposit in the account, calculate and print the amount of money in the account at the end of each year for 10 years. Use the following formula for determining these amounts:</p> $a = p(1 + r)^n$ <p>Where  <u>p</u> is the original amount invested (i.e.,the principal)  <u>r</u> is the annual interest rate  <u>n</u> is the number of years  <u>a</u> is the amount on deposit at the end of the nth year.  <u>"p","n" and "r" are entered by user to calculate "a".</u>  <b>According to example, Output should be like:</b></p> <table style="width: 100%;"> <thead> <tr> <th>Year</th> <th>Amount on deposit</th> </tr> </thead> <tbody> <tr><td>1</td><td>1050.00</td></tr> <tr><td>2</td><td>1102.50</td></tr> <tr><td>3</td><td>1157.63</td></tr> <tr><td>4</td><td>1215.51</td></tr> <tr><td>5</td><td>1276.28</td></tr> <tr><td>6</td><td>1340.10</td></tr> <tr><td>7</td><td>1407.10</td></tr> <tr><td>8</td><td>1477.46</td></tr> <tr><td>9</td><td>1551.33</td></tr> <tr><td>10</td><td>1628.89</td></tr> </tbody> </table>	Year	Amount on deposit	1	1050.00	2	1102.50	3	1157.63	4	1215.51	5	1276.28	6	1340.10	7	1407.10	8	1477.46	9	1551.33	10	1628.89	<p>2- (20p)Write a C program to calculate a greatest common divisor(gcd) of integer x and y.(GCD is the largest integer that evenly divides both x and y.)</p> <p>-----</p> <p>3-(10p)Write a program that converts temperatures Celsius to fahrenheit (hint:F=9/5C + 32)</p> <p>-----</p> <p>4- (30p)</p> $f(x) = \sum_{k=1}^x (k + x^2)$ <p>Write a program to calculate result of <u>f(x)</u> function. <u>Value of "x" and "z" are entered by keyboard.</u></p> <p>-----</p> <p>5-(10p) Write a average of "n" numbers. "n" is entered by keyboard. (Hint:numbers and result should be float)</p> <p>-----</p> <p>6-(1p)-Write a program that write your name and surname on the screen!!</p>
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Yrd.Doç.Dr. Oğuz Ata

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