

1441	CS 205	كلية الهندسة
الفصل الدراسي الأول	YEES1	هندسة كهربائية
اختبار نهائي تيرم اول	Full Mark: 40 Points	برمجة الحاسب
الرقم الجامعي		اسم الطالب

1. Trace and display the print out

<pre>#include <stdio.h> #include <stdlib.h> main() { int i,j,x=0; for(i = 0;i<5;++i) for(j=0;j<i;++j) { x += (i+j-1); printf("%d",x); break; } printf("\nx=%d",x); }</pre>	
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2. Write a **C program** that can calculate the **triangle area** given the **lengths of the three sides**

Note: $Area = \sqrt{s * (s - A) * (s - B) * (s - C)}$

Where

s: half of perimeter

A, B, C: triangle side length

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3. Write a C program that **uses looping to print the following table of values.**

N	10*N	100*N	1000*N
1	10	100	1000
2	20	200	2000
3	30	300	3000
4	40	400	4000
5	50	500	5000
6	60	600	6000
7	70	700	7000
8	80	800	8000
9	90	900	9000
10	100	1000	10000

4. Write a C program that estimates the value of the mathematical constant **e** by using the formula:

$$e = 1 + \frac{1}{1!} + \frac{1}{2!} + \frac{1}{3!} + \dots + \frac{1}{n!}$$

5. Write a C program to **read 50 numbers entered by user**. The program should **print out the count of numbers that are above or equal to the average**