

COP 3223 Sec 2: Spr '12 C Progr Practice Test 1 (50 points)

• 1. (8 points)

Write down the printed output of this program. Mark your blank chars too.

WRITE YOUR OUTPUT BELOW HERE
ONLY THIS WILL BE GRADED

```

#include <stdio.h>

int main(void)
{
    float f;
    int a,i;
    a = 4;
    a = a - 1;
    printf ("P= %d\n", a);
    a += 2;
    a++;
    a = a % 2;
    printf ("Q= %4d\n", a);
    i=2;
    f=13.0;
    printf ("R= %6.2f\n", f/i);
    a=13;
    printf ("S= %d\n", a/i);

    return 0;
}

```

Out Line 1

Out Line 2

Out Line 3

Out Line 4

Out Line 5

Out Line 6

- 2. (12 points) Trace the following program:

ENTER YOUR TRACE BELOW				
Prog Line #	a	b	c	print or other action
1. #include <stdio.h>				
2.				
3. int main(void)				
4. {				
5. int a=5 , b=3, c=4;				
6. a += 1;				
7.				
8. if (b > c)				
9. printf ("a= %d\n", a+4);				
10. else				
11. printf ("b= %d\n", b);				
12.				
13. b -= 2;				
14. if (a <= b)				
15. {				
16. printf ("c= %d\n", a+c);				
17. }				
18. else				
19. {				
20. if (b > c)				
21. printf ("d= %d\n", a+c);				
22. else				
23. printf ("f= %d\n", c);				
24. }				
25.				
26. return 0;				
27. }				

WRITE YOUR FINAL OUTPUT HERE				
Outline 1				
Outline 2				
Outline 3				
Outline 4				

- 3. (20 points) Trace the following program:

ASSUME keyboard input IS: 4

ENTER YOUR TRACE BELOW

Prog Line #	p	i	n	print or other action
1. #include <stdio.h>				
2. int main(void)				
3. {				
4. int p, i, n;				
5. p = 2; i = 3;				
6. scanf("%d",&n);				
7. while (i <= n)				
8. {				
9. if (i < n)				
10. printf ("b= %d\n", p);				
11. p = p + i * i ;				
12. i++;				
13. }				
14. for (i=6; i<8; i++)				
15. {				
16. printf ("c= %d\n",p+i);				
17. }				
18. return 0;				
19. }				

WRITE YOUR FINAL OUTPUT HERE

Outline 1				
Outline 2				
Outline 3				
Outline 4				
Outline 5				
Outline 6				

- 4. (10 points) Write a complete C program that uses a FOR-loop to read in 50 integers. For each of the 50 integers, if it is greater than 100, it should be added into a sum that was initialized to zero. After the loop, multiply the sum by 85 and then print out the answer. Assume correct input.
- 5. (10 points) Write a complete C program that uses a FOR-loop to read in 41 integers. For each of the 41 integers, first multiply the integer by itself; if the result obtained (i.e., the squared value) is greater than 500, the original integer (before it was squared) should be added into a sum that was initialized to zero. After the loop, multiply the sum by itself and then print out the answer as an integer. Assume correct input.