

Name : _____

Instructor (circle) Cordes Zhang

CS 100 Exam II

Using the files shown at the right, give the output of the C program shown below

one	two
2	1
4	5
7	3
9	7
5	5
8	6

```
#include <stdio.h>
int main(void) {
    int a, num1, num2;
    FILE *F1 = fopen("one", "r");
    fscanf(F1, "%d", &num1);
    FILE *F2 = fopen("two", "r");
    fscanf(F2, "%d", &num2);
    for (a=1; a<6; a++) {
        if (num1 > num2) {
            printf("%d\n", num1);
            fscanf(F2, "%d", &num2);
        }
        else {
            printf("%d\n", num2);
            fscanf(F1, "%d", &num1);
        }
    }
    fclose(F1);
    fclose(F2);
    return 0;
}
```

Give the output of the C program shown below

```
#include <stdio.h>
int fOne(int a, int b) {
    return (a / b) + (a % b);
}
int fTwo(int a, int b, int *c) {
    if (a > b)
        *c = a * b;
    else
        *c = a + b;
    return a - b;
}
int main(void) {
    printf("%d\n", fOne(20, 6) );
    printf("%d\n", fOne(fOne(9,2), fOne(8,3)));
    int x;
    printf("%d\n", fTwo(5, 10, &x) );
    printf("%d\n", fTwo(10, 5, &x) );
    printf("%d\n", x);
    return 0;
}
```

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one	two
5	3
4	6
7	9
9	2
2	7
8	4

```
#include <stdio.h>
int main(void) {
    int a, num1, num2;
    FILE *F1 = fopen("one", "r");
    fscanf(F1, "%d", &num1);
    FILE *F2 = fopen("two", "r");
    fscanf(F2, "%d", &num2);
    for (a=1; a<6; a++) {
        if (num1 > num2) {
            printf("%d\n", num1);
            fscanf(F2, "%d", &num2);
        }
        else {
            printf("%d\n", num2);
            fscanf(F1, "%d", &num1);
        }
    }
    fclose(F1);
    fclose(F2);
    return 0;
}
```

Give the output of the C program shown below

```
#include <stdio.h>
int fOne(int a, int b) {
    return (a / b) + (a % b);
}
int fTwo(int a, int b, int *c) {
    if (a > b)
        *c = a * b;
    else
        *c = a + b;
    return a - b;
}
int main(void) {
    printf("%d\n", fOne(16, 3) );
    printf("%d\n", fOne(fOne(9,3), fOne(4,3)));
    int x;
    printf("%d\n", fTwo(4, 8, &x) );
    printf("%d\n", fTwo(8, 4, &x) );
    printf("%d\n", x);
    return 0;
}
```