BASIC C PROGRAMMING-PRACTICE

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Given two numbers, write a C program to swap the given numbers.

For example:

Input	Result
10 20	20 10

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main() {
    int a, b;
    scanf("%d %d", &a, &b);
    int temp = a;
    a = b;
    b = temp;
    printf("%d %d\n", a, b);
    return 0;
}
```

	Input	Expected	Got	
✓	10 20	20 10	20 10	✓

Passed all tests! ✓

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main() {
    int maths, physics, chemistry, total;
    scanf("%d %d %d", &maths, &physics, &chemistry);
    total = maths + physics + chemistry;
    if ((maths >= 65 && physics >= 55 && chemistry >= 50) || total >= 180) {
        printf("The candidate is eligible\n");
    } else {
        printf("The candidate is not eligible\n");
    }

    return 0;
}
```

	Input	Expected	Got	
✓	70 60 80	The candidate is eligible	The candidate is eligible	✓
✓	50 80 80	The candidate is eligible	The candidate is eligible	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00

Output:

2700

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main() {
    float B, A;
    scanf("%f", &B);
    if (B > 2000) {
        A = B - (B * 0.10);
    } else {
        A = B;
    }
    printf("%.2f\n", A);
      return 0;
}
```

	Input	Expected	Got	
✓	1900	1900	1900.00	✓
✓	3000	2700	2700.00	✓

Output:

400

Explanation:

Baba donated to two beggars. So when he encountered second beggar he had 100*2 = Rs.200 and when he encountered 1st he had 200*2 = Rs.400.

Answer: (penalty regime: 0 %)

```c
#include <math.h>
#include <stdio.h>
int main() {
    int M, B, initialAmount;
    scanf("%d %d", &M, &B);
    initialAmount = M * pow(2, B);
    printf("%d\n", initialAmount);

    return 0;
}
```

	Input	Expected	Got	
✓	100 2	400	400	✓

Passed all tests! ✓

So total = Rs.2100

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

int main() {
    int L, N, total_incentive = 0;
    scanf("%d", &L);
    scanf("%d", &N);
    for (int i = 0; i < N; i++) {
        total_incentive += L;
        L += 200;
    }
    printf("%d\n", total_incentive);

    return 0;
}
```

	Input	Expected	Got	
✓	500 3	2100	2100	✓
✓	100	900	900	✓

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

int main() {
    int M, N, X;
    scanf("%d", &M);
    scanf("%d", &N);
    scanf("%d", &X);
    for (int i = N; i >= M; i--) {
        if (i % X == 0) {
            printf("%d ", i);
        }
    }

    return 0;
}
```

	Input	Expected	Got	
✓	2 40 7	35 28 21 14 7	35 28 21 14 7	✓

Passed all tests! ✓

Write a C program to find the quotient and reminder of given integers.

For example:

Input	Result
12 3	4 0

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

int main() {
    int dividend, divisor, quotient, remainder;
    scanf("%d %d", &dividend, &divisor);
    quotient = dividend / divisor;
    remainder = dividend % divisor;
    printf("%d\n%d\n", quotient, remainder);

    return 0;
}
```

Write a C program to find the biggest among the given 3 integers?

For example:

Input	Result
10 20 30	30

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

int main() {
    int a, b, c, max;
    scanf("%d %d %d", &a, &b, &c);
    if (a >= b && a >= c) {
        max = a;
    } else if (b >= a && b >= c) {
        max = b;
    } else {
        max = c;
    }
    printf("%d\n", max);

    return 0;
}
```

	Input	Expected	Got	

Write a C program to find whether the given integer is odd or even?

For example:

Input	Result
12	Even
11	Odd

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main(){
    int num;
    scanf("%d", &num);
    if(num%2==0){
        printf("Even\n");
    }
    else{
        printf("Odd\n");
    }
    return 0;
}
```

	Input	Expected	Got	
✓	12	Even	Even	✓
✓	11	Odd	Odd	✓

Write a C program to find the factorial of given n.

For example:

Input	Result
5	120

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

int main() {
    int N, factorial = 1;
    scanf("%d", &N);
    for (int i = 1; i<=N; i++){
        factorial *=i;
    }
    printf("%d\n",factorial);

    return 0;
}
```

	Input	Expected	Got	
✓	5	120	120	✓

Write a C program to find the sum first N natural numbers.

For example:

Input	Result
3	6

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

int main() {
    int N, sum = 0;
    scanf("%d", &N);
    if (N < 1) {
        printf("Enter a valid natural number (N >= 1).\n");
    } else {
        sum = N * (N + 1) / 2;
        printf("%d\n", sum);
    }

    return 0;
}
```

	Input	Expected	Got	
✓	3	6	6	✓

Passed all tests! ✓

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

int main() {
    int n, a = 0, b = 1, next, i;
    scanf("%d", &n);
    if (n < 0) {
        printf("Please enter a non-negative integer.\n");
    } else if (n == 0) {
        printf("%d\n", a);
    } else if (n == 1) {
        printf("%d\n", b);
    } else {
        for (i = 2; i <= n; i++) {
            next = a + b;
            a = b;
            b = next;
        }
        printf("%d\n", b);
    }

    return 0;
}
```

	Input	Expected	Got	
✓	0	0	0	✓
✓	1	1	1	✓
✓	4	3	3	✓

Passed all tests! ✓

For example:

Input	Result
2 5	32

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
#include <math.h>

int main() {
    int a, b;
    long long result;
    scanf("%d %d", &a, &b);
    result = pow(a, b);

    printf("%lld\n",result);

    return 0;
}
```

	Input	Expected	Got	
✓	2 5	32	32	✓

Passed all tests! ✓

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
#include <math.h>
int main() {
    int n, i, flag = 1;
    scanf("%d", &n);
    if (n < 2) {
        printf("No Prime\n");
        return 0;
    }
    for (i = 2; i <= sqrt(n); i++) {
        if (n % i == 0) {
            flag = 0;
            break;
        }
    }
    if (flag == 1) {
        printf("Prime\n");
    } else {
        printf("No Prime\n");
    }

    return 0;
}
```

	Input	Expected	Got	
✓	7	Prime	Prime	✓
✓	9	No Prime	No Prime	✓

Passed all tests! ✓

Write a C program to find the reverse of the given integer?

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

int main() {
    int n, reverse = 0, remainder;

    // Taking input from the user
    scanf("%d", &n);

    // Loop to reverse the number
    while (n != 0) {
        remainder = n % 10;  // Extract last digit
        reverse = reverse * 10 + remainder;  // Build reversed number
        n /= 10;  // Remove last digit
    }

    // Printing the reversed number
    printf("%d\n", reverse);

    return 0;
}
```

	Input	Expected	Got	
✓	123	321	321	✓

Passed all tests! ✓