

....Task-1....

```
#include <stdio.h>

int factorial(int n) {
    if (n == 0) {
        return 1;
    } else {
        return n * factorial(n - 1);
    }
}

int main() {
    int n = 10;
    printf("Factorial of %d is %d", n, factorial(n));
    return 0;
}
```

....Task-2....

```
#include <stdio.h>

int fibonacci(int n) {
    if (n <= 1) {
        return n;
    } else {
        return fibonacci(n - 1) + fibonacci(n - 2);
    }
}

int main() {
    int n = 10;
    printf("Fibonacci number at position %d is %d", n, fibonacci(n));
    return 0;
}
```

....Task-3....

```
#include <stdio.h>

void printArray(int arr[], int size, int index) {
    if (index == size) {
        return;
    }
    printf("%d ", arr[index]);
    printArray(arr, size, index + 1);
}

int main() {
    int arr[] = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};
    int size = sizeof(arr) / sizeof(arr[0]);
    printArray(arr, size, 0);
    return 0;
}
```

....Task-4....

```
#include <stdio.h>

int power(int m, int n) {
    if (n == 0) {
        return 1;
    } else {
        return m * power(m, n - 1);
    }
}

int main() {
    int m = 10;
    int n = 11;
    printf("Power of %d raised to %d is %d\n", m, n, power(m, n));
    return 0;
}
```
