Aluna: **Rayssa Silva Costa**

Lista 5

QUESTÃO 1

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

int SOMA(int x){
    if (x == 1){
        return 1;
    }else{
        return x + SOMA(x - 1);
    }
}

int main(){
    int n;
    printf("Digite um numero: ");
    scanf("%d", &n);
    printf("%d", SOMA(n));
}
```

QUESTÃO 2

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

int MULT(int x, int y){
    if(y == 0){
        return 0;
    }else{
        return x + MULT(x, y - 1);
    }
}

int main(){
    int num1, num2;
    printf("\nDigite dois numeros: ");
    scanf("%d %d", &num1, &num2);
    printf("%d", MULT(num1, num2));
}
```

QUESTÃO 3

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

```c
#include <stdlib.h>

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

int main(){
    int base, expo;
    printf("Digite a base e o expoente: ");
    scanf("%d %d", &base, &expo);
    printf("%d", POT(base, expo));
}
```

QUESTÃO 4

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

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

int FATORIAL_QUA(int n) {
    return FATORIAL(2 * n) / FATORIAL(n);
}

int main(){
    int n;
    printf("Digite um numero: ");
    scanf("%d", &n);
    printf("%d", FATORIAL_QUA(n));
}
```

QUESTÃO 6

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

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

int main(){
    int n;
    printf("Digite um numero: ");
    scanf("%d", &n);
    printf("%d", FIBONACCI(n));
}
```

QUESTÃO 7

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

int SOMATORIO(int n){
    if(n == 1){
        return 0;
    }else{
        return 2 * (n - 1) + SOMATORIO(n - 1);
    }
}

int main(){
    int n;
    printf("Digite um numero: ");
    scanf("%d", &n);
    printf("%d", SOMATORIO(n));
}
```

QUESTÃO 8

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

int TRIBONACCI(int n){
    if(n == 0 || n == 1){
        return 0;
    }else if(n == 2){
        return 1;
    }else{
```

```c
        return TRIBONACCI(n - 1) + TRIBONACCI(n - 2) + TRIBONACCI(n - 3);
    }
}

int main(){
    int n;
    printf("Digite um numero: ");
    scanf("%d", &n);
    printf("%d", TRIBONACCI(n));
}
```

QUESTÃO 9

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

int PELL(int n){
    if(n == 0){
        return 0;
    }else if(n == 1){
        return 1;
    }else{
        return 2 * PELL(n - 1) + PELL(n - 2);
    }
}

int main(){
    int n;
    printf("Digite um numero: ");
    scanf("%d", &n);
    printf("%d", PELL(n));
}
```