Exercício 1

Ex1.c

```c
#include<stdio.h>
#include<math.h>
int main(void){
    float p,a,i;

    printf("Peso e altura? ");
    scanf("%f %f",&p,&a);
    i = p/pow(a,2);
    printf("IMC = %.2f\n",i);

    return 0;
}

```

```
C:\Users\claud\OneDrive - Fat
Peso e altura? 66 1.74
IMC = 21.80

--------------------------------
Process exited after 8.227 seconds with return value 0
Pressione qualquer tecla para continuar. . .
```

Exercício 2

Ex1.c Ex2.c

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

int main(void){
    float p,a,i;

    printf("Peso e altura?");
    scanf("%f %f",&p,&a);
    i = p/pow(a,2);

    printf("IMC = %.2f\n",i);

    if(i<18.5) puts("Magra");
    else if(i>30) puts("Obesa");
    else puts("Normal");

    return 0;
}

```

```
C:\Users\claud\OneDrive - Fat
Peso e altura?66 1.74
IMC = 21.80
Normal

--------------------------------
Process exited after 5.802 seconds with return value 0
Pressione qualquer tecla para continuar. . .
```

Exercício 3

Ex1.c Ex2.c Ex3.c

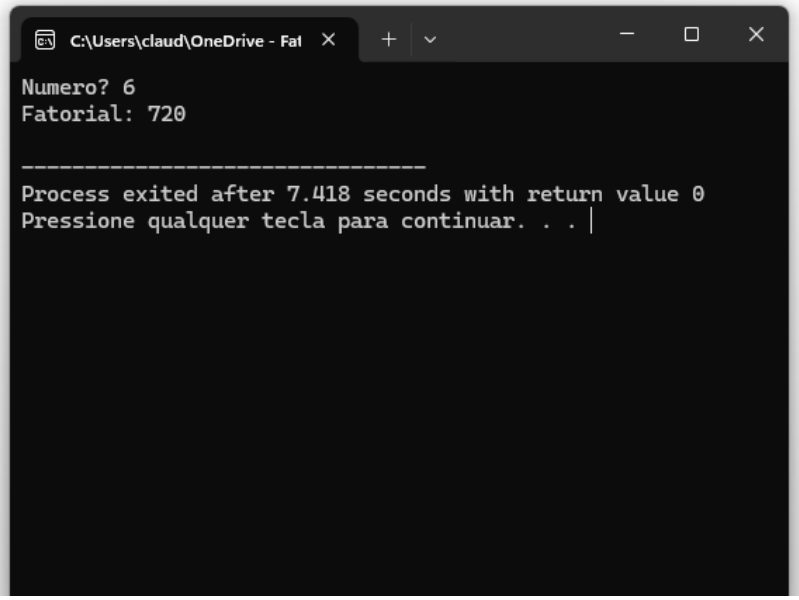
```c
#include<stdio.h>

int main(void){
    int p;
    printf("Placa? ");
    scanf("%d",&p);
    switch(p%10){
        case 1: case 2: puts("Segunda-feira"); break;
        case 3: case 4: puts("Terca-feira"); break;
        case 5: case 6: puts("Quarta-feira"); break;
        case 7: case 8: puts("Quinta-feira"); break;
        default:      puts("Sexta-feira");
    }
    return 0;
}

```

```
C:\Users\claud\OneDrive - Fat
Placa? 2
Segunda-feira

--------------------------------
Process exited after 4.474 seconds with return value 0
Pressione qualquer tecla para continuar. . .
```

Exercício 4

Ex1.c Ex2.c Ex3.c Ex4.c

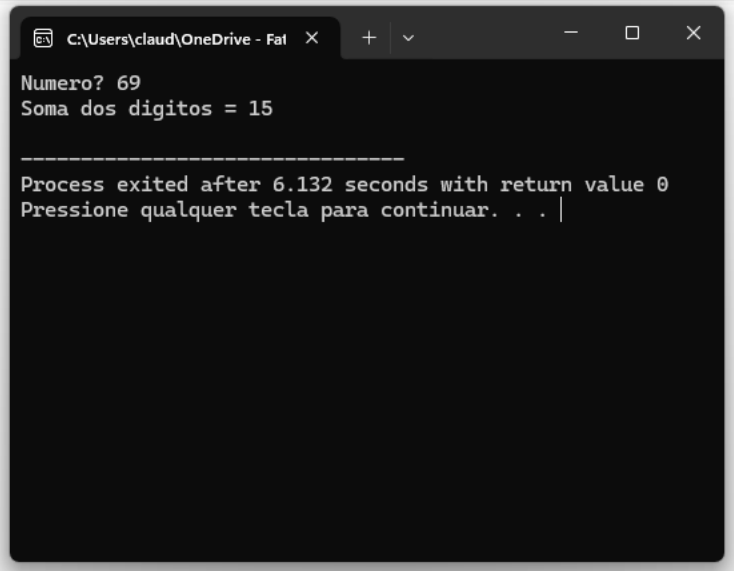
```c
#include<stdio.h>

int main(void){
    int n,f;

    printf("Numero? ");
    scanf("%d",&n);
    f = 1;

    for(int i=2; i<=n; i++)
        f *= i;
    printf("Fatorial: %d\n",f);

    return 0;
}
```



Exercício 5

Ex1.c Ex2.c Ex3.c Ex4.c Ex5.c

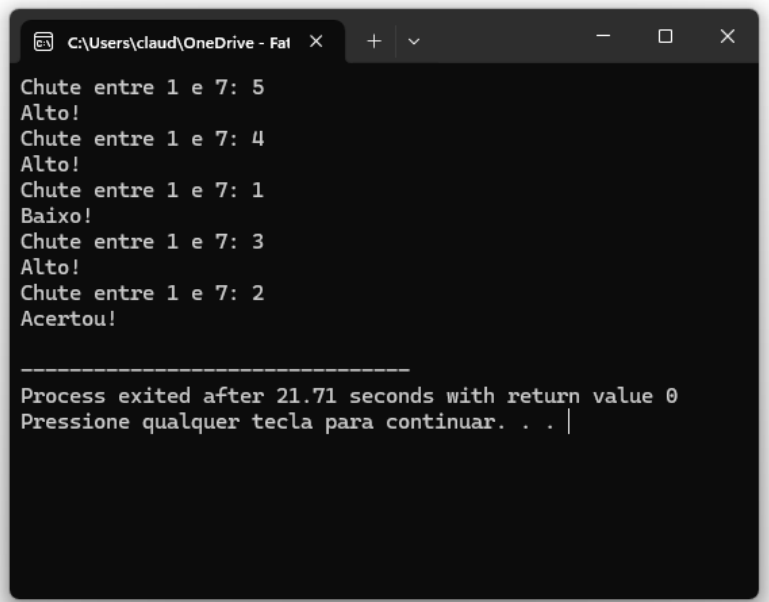
```c
#include<stdio.h>

int main(void){
    int n;

    printf("Numero? ");
    scanf("%d" ,&n);

    int s=0;

    while(n>0){
        s += n%10;
        n /= 10;
    }
    printf("Soma dos digitos = %d\n",s);

    return 0;
}
```



Exercício 6

Ex1.c Ex2.c Ex3.c Ex4.c Ex5.c Ex6.c

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

int main(void){
    srand(time(NULL));
    int c,n = rand()%7+1;

    do{
        printf("Chute entre 1 e 7: ");
        scanf("%d",&c);
        if(c<n) puts("Baixo!");
        else if(c>n) puts("Alto!");
    }while(n!=c);

    puts("Acertou!");

    return 0;
}
```



Exercício 7

```c
#include<stdio.h>

int fat(int n){
    int f=1;
    for(int i=2; i<=n; i++)f *= i;
    return f;
}

int main(void){
    printf("Fatorial do 5: %d\n", fat(5));
    return 0;
}
```

```
C:\Users\claud\OneDrive - Fat
Fatorial do 5: 120

--------------------------------
Process exited after 0.08376 seconds with return value 0
Pressione qualquer tecla para continuar. . .
```

Exercício 8

```c
#include<stdio.h>

void barras(int v[],int n){
    for(int i=0; i<n; i++){
        for(int j=0; j<v[i]; j++)
            putchar(220);
        putchar('\n');
    }
}

int main(void){
    int a[4] = {3,4,2,1};
    int b[3] = {9,4,7};
    barras (a,4);
    getchar();
    barras (b,3);

    return 0;
}
```

```
C:\Users\claud\OneDrive -
```

Exercício 9

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

int main(void){
    char s[256];
    printf("Senha? ");
    gets(s);
    if (strcmp(s,"abracadabra")==0) puts("Ok!");
    else puts("Senha invalida!");
    return 0;
}
```

```
C:\Users\claud\OneDriv
Senha? abracadabra
Ok!

--------------------------------
Process exited after 14.34 seconds with return v
alue 0
Pressione qualquer tecla para continuar. . .
```

Exercício 10

```c
#include<stdio.h>

typedef struct {float x; float y; } Ponto;

int main(void){
    Ponto p = {1.5,2.5};
    printf("(%.1f,%.1f)\n",p.x,p.y);
    return 0;
}
```

```
C:\Users\claud\OneDrive - Fat
(1.5,2.5)

--------------------------------
Process exited after 0.0603 seconds with return value 0
Pressione qualquer tecla para continuar. . .
```

Exercício 11

```c
#include <stdio.h>

int main(void) {
    int v =5; // variável simples
    int*p; // variável ponteiro
    p = &v;
    *p =*p +2;
    printf("v=%d, *p=%d\n",v,*p);

    return 0;
}
```

```
C:\Users\claud\OneDrive - Fat
v=7, *p=7

--------------------------------
Process exited after 0.08115 seconds with return value 0
Pressione qualquer tecla para continuar. . .
```

Exercício 12

```c
#include <stdio.h>

void troca(int a, int b) {
    int c = a;
    a = b;
    b = c;
}

int main(void) {
    int x = 5, y = 3;
    troca(x, y);
    printf("x: %d y: %d", x, y);
}
```

```
C:\Users\claud\OneDrive - Fat
x: 5 y: 3
--------------------------------
Process exited after 0.06022 seconds with return value 0
Pressione qualquer tecla para continuar. . .
```

Exercício 13

```c
#include <stdio.h>
void troca(int *a, int *b) {
    int c = *a;
    *a = *b;
    *b = c;
}


int main(void) {
    int x = 5, y = 3;
    troca(&x, &y);
    printf("x: %d y: %d", x, y);
}
```

```
C:\Users\claud\OneDrive - Fat
x: 3 y: 5
--------------------------------
Process exited after 0.06849 seconds with return value 0
Pressione qualquer tecla para continuar. . .
```

Exercício 14

Ex1.c Ex2.c Ex3.c Ex4.c Ex5.c Ex6.c Ex7.c Ex8.c Ex9.c Ex10.c Ex11.c Ex12.c Ex14.c

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

float media(float v[],int n){
    float s = 0;

    for(int i=0; i<n; i++)
        s += v[i];

    return s/n;
}

int main(void){
    int n;

    printf("Quantidade de numeros? ");
    scanf("%d",&n);

    float *v = malloc(n*sizeof(float));

    for(int i=0; i<n; i++){
        printf("%do numero? ",i+1);
        scanf("%f",&v[i]);
    }

    printf("Media = %.2f\n",media(v,n));
    return 0;
```

```
C:\Users\claud\OneDrive - Fat
Quantidade de numeros? 6
1o numero? 5
2o numero? 8
3o numero? 1
4o numero? 9
5o numero? 10
6o numero? 7
Media = 6.67

--------------------------------
Process exited after 17.38 seconds with return value 0
Pressione qualquer tecla para continuar. . .
```

Exercício 15

Ex1.c Ex2.c Ex3.c Ex4.c Ex5.c Ex6.c Ex7.c Ex8.c Ex9.c Ex10.c Ex11.c Ex12.c Ex14.c Ex15.c

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

typedef struct no *Ptr;
struct no{int item; Ptr prox;};

Ptr no(int x,Ptr p){
    Ptr n = malloc(sizeof(struct no));
    n->item = x;
    n->prox = p;
    return n;
}

int main(void){
    Ptr p = no(3,no(1,no(5,NULL)));
    while(p != NULL){
        printf("%d\n",p->item);
        p = p->prox;
    }
    return 0;
}
```

```
C:\Users\claud\OneDrive - Fat
3
1
5

--------------------------------
Process exited after 0.04821 seconds with return value 0
Pressione qualquer tecla para continuar. . .
```