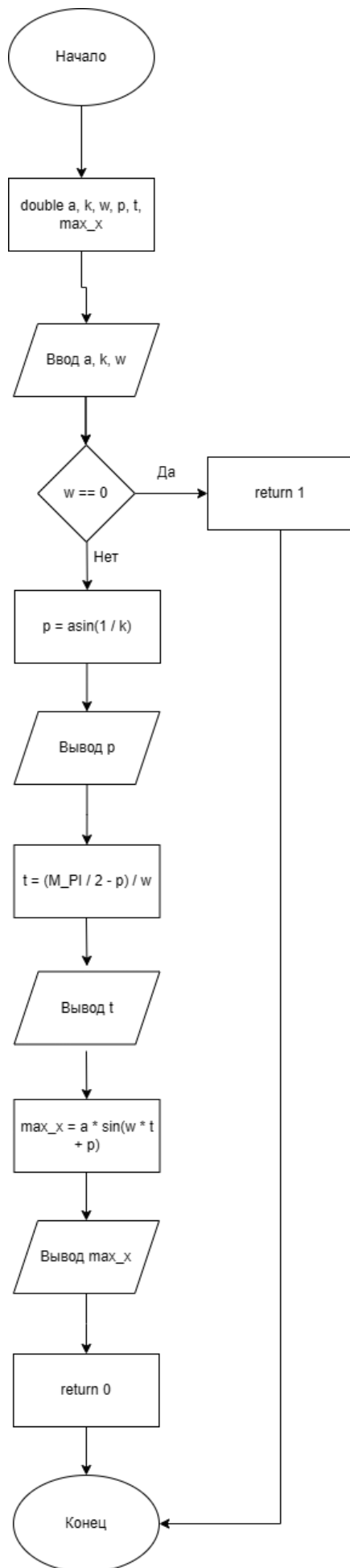


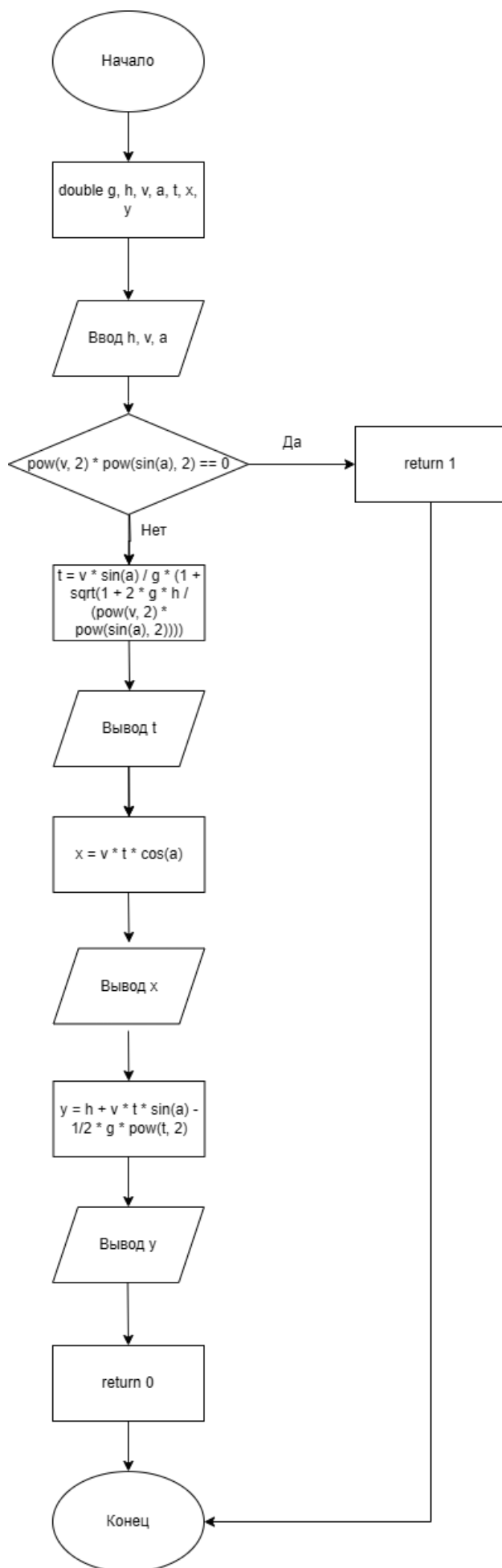
Задача 1

```
PS C:\Users\user\C++\homework> cd C:\Users\user\C++\homework\list01_dz
PS C:\Users\user\C++\homework\list01_dz> ./program_01
Enter amplitude of oscillations: 10
Enter k: 2
Enter cyclic frequency: 4
The value of initial phase of oscillations is 0.523599.
The value of T is 0.261799.
Maximum x is 10.
PS C:\Users\user\C++\homework\list01_dz> ./program_01
Enter amplitude of oscillations: 50
Enter k: 6
Enter cyclic frequency: 10
The value of initial phase of oscillations is 0.167448.
The value of T is 0.140335.
Maximum x is 50.
PS C:\Users\user\C++\homework\list01_dz> █
```



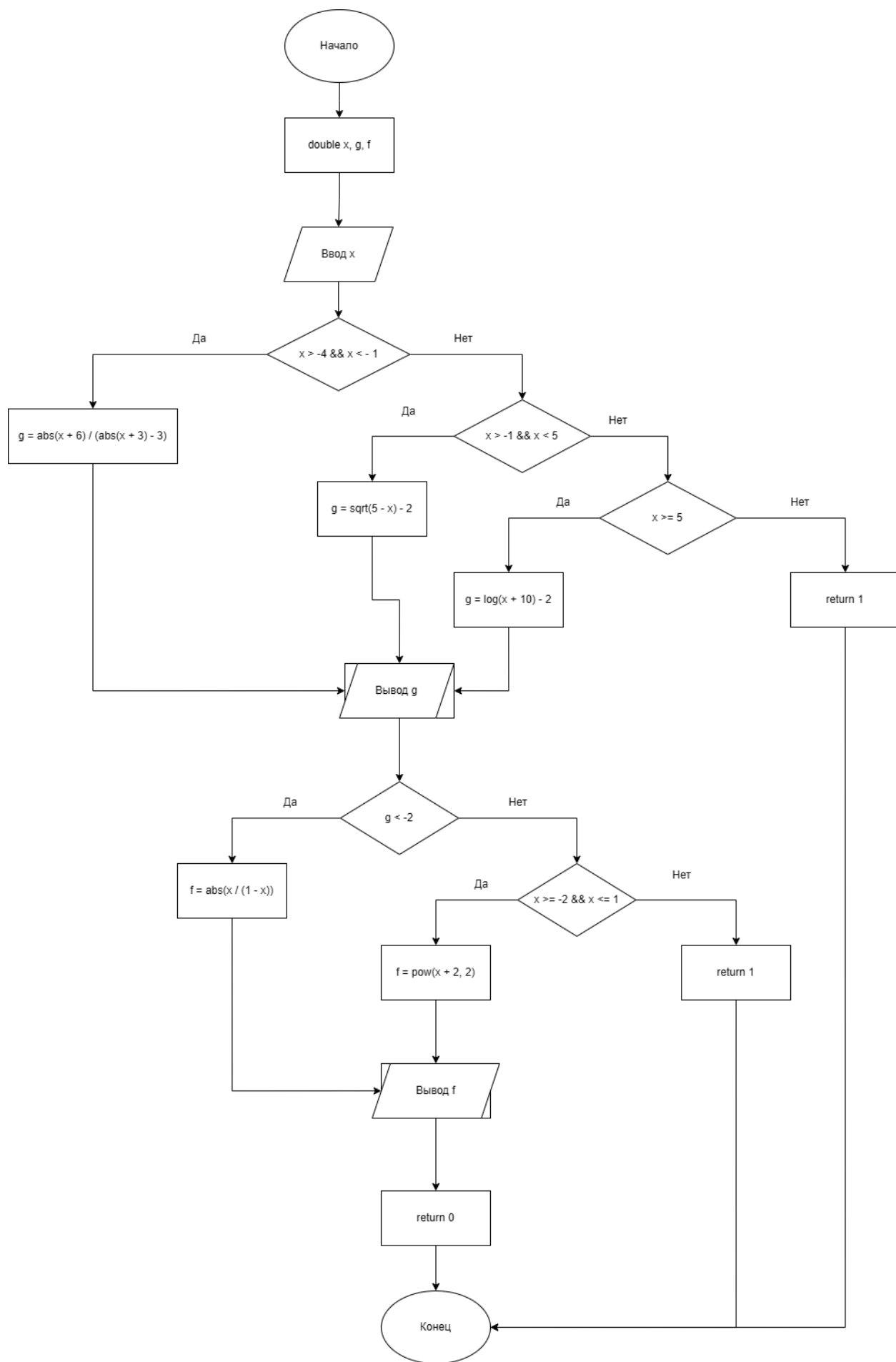
Задача 2

```
PS C:\Users\user\C++\homework\list01_dz> ./program_02
Enter h: 4
Enter v: 25
Enter a (in radians): 0.5
Stone flight time: 2.74359
Height from cliff bottom: 60.1931
Distance from cliff edge: 36.8837
PS C:\Users\user\C++\homework\list01_dz> ./program_02
Enter h: 10
Enter v: 3
Enter a (in radians): 0.6
Stone flight time: 1.61184
Height from cliff bottom: 3.99093
Distance from cliff edge: 12.7303
PS C:\Users\user\C++\homework\list01_dz> 
```



Задача 3

```
PS C:\Users\user\C++\homework\list01_dz> ./program_03
Enter x: 5
The value of  $g(x)$ : 0.70805
Impossible to calculate - the values are out of domain.
PS C:\Users\user\C++\homework\list01_dz> ./program_03
Enter x: -2
The value of  $g(x)$ : -2
The value of  $f(g(x))$ : 0
PS C:\Users\user\C++\homework\list01_dz> █
```



Задача 4

```
PS C:\Users\user\C++\homework\list01_dz> ./program_04
Enter the price of the product A: 10
Enter the price of the product B: 25
Enter the price of the product C: 57
What product would you like to buy?
    0 - A;
    1 - B;
    2 - C.

0
What customer category are you in?
    0 - excellent;
    1 - good;
    2 - average;
    3 - bad.

2
The original price is 10
You can pay buy cash. The price is 8
You can also pay by bank check. Enter number of installments: 4
Enter interest rate as percentage (from 3 to 15): 5
The price is 9.6
```

```
PS C:\Users\user\C++\homework\list01_dz> ./program_04
Enter the price of the product A: 7
Enter the price of the product B: 98
Enter the price of the product C: 64
What product would you like to buy?
    0 - A;
    1 - B;
    2 - C.

2
What customer category are you in?
    0 - excellent;
    1 - good;
    2 - average;
    3 - bad.

0
The original price is 64
You can pay buy cash. The price is 51.2
You can also pay by bank check. Enter number of installments: 3
Enter interest rate as percentage (from 3 to 15): 8
The price is 63.488
You can also pay by credit. Enter number of installments (from 1 to 6): 2
Enter credit type:
    0 - platinum;
    1 - business.

0
The price is 51.2
```

