

<https://github.com/DelusionsOfGrandeur/labs>

Введение в программирование 15.

Номер1.

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

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

```
double powerA3(float a, float b)
{
    b = a * a * a;
    return (b);
}

int main()
{
    float a, b, res;
    int i;
    for(i=2; i<7; i++)
    {
        res = powerA3(i, b);
        printf("%i v 3 stepeni %f\n", i, res);
    }
    return 0;
}
```

Номер2.

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

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

```
int sign(float x)
{
    float sign1;
    if(x<0)
```

```

        {
            sign1 = -1;
        }
    if(x==0)
    {
        sign1 = 0;
    }
    if(x>0)
    {
        sign1 = 1;
    }
    return(sign1);
}

int main()
{
    float x, resultx;
    printf("vvedite znachenie x\n");
    scanf("%f", &x);
    resultx = sign(x);
    printf("%f\n", resultx);
    float a, b;
    printf("vvedite znacheniya a and b\n");
    scanf("%f %f", &a, &b);
    float res;
    res = sign(a) + sign(b);
    printf("%f\n", res);
    return 0;
}

```

Homep3.

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

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

```
float rings(float r1, float r2)
```

```
{  
    float s;  
    s = 3.14 * (pow(r1, 2) - pow(r2, 2));  
    return(s);  
}
```

```
int main()
```

```
{  
    float r1, r2, s;  
    int i;  
    for(i=1; i<=3; i++)  
    {  
        printf("vvedite znachenie r1 and r2, uchityvaya, chto r1 > r2\n");  
        scanf("%f %f", &r1, &r2);  
        s = rings(r1, r2);  
        printf("s = %.2f\n", s);  
    }  
    return 0;  
}
```

Homep4.

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

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

```
int quarter(float x, float y)
```

```
{  
    if((x>0) and (y>0))  
    {  
        printf("tochka nahoditsya v 1 chetverti\n");  
    }  
    if((x<0) and (y>0))
```

```

        {
            printf("tochka nahoditsya vo 2 chetverti\n");
        }
        if((x<0) and (y<0))
        {
            printf("tochka nahoditsya v 3 chetverti\n");
        }
        if((x>0) and (y<0))
        {
            printf("tochka nahoditsya v 4 chetverti\n");
        }
    }

int main()
{
    float x, y, res;
    int i;
    for(i=1; i<=3; i++)
    {
        printf("vvedite koordinaty tochki po osi x and po osi y\n");
        scanf("%f %f", &x, &y);
        res = quarter(x, y);
        printf("\n", res);
    }
    return 0;
}

```

Homep5.

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

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

```
float fact2(int n)
```

```
{
```

```

        float f2, m;

f2 = 1;
for(n; n>1; n = n - 2)
{
    f2 = f2 * n;
}
return(f2);
}

int main()
{
    int i, n, res;
    for(i=1; i<=3; i++)
    {
        printf("\nvvedite znachenie n > 0\n");
        scanf("%d", &n);
        res = fact2(n);
        printf("dvoynoy factorial vvedennogo chisla raven %d\n", res);
    }
    return 0;
}

```