

main - Notepad

File Edit Format View Help

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

```
int main() {
    long int testInteger = 300000000;
    printf("Number is %ld", testInteger);
    return 0;
```

/ The problem was that the number used was too large for the int datatype so long int had to be used.

C:\Windows\System32\cmd.exe  
Microsoft Windows [Version 10.0.19045.4780]  
(c) Microsoft Corporation. All rights reserved.  
C:\24k0016>gcc main.c -o main.exe  
C:\24k0016>main.exe  
Number is 300000000  
C:\24k0016>



Q2)

Start

a, b, temp

temp = a

a = b

b = temp

Start

a, b, temp

temp = a

a = b

b = temp

New a, New b

End

Start

Inputs a, b, temp

Print "Enter a"

Print "Enter b"

temp = a

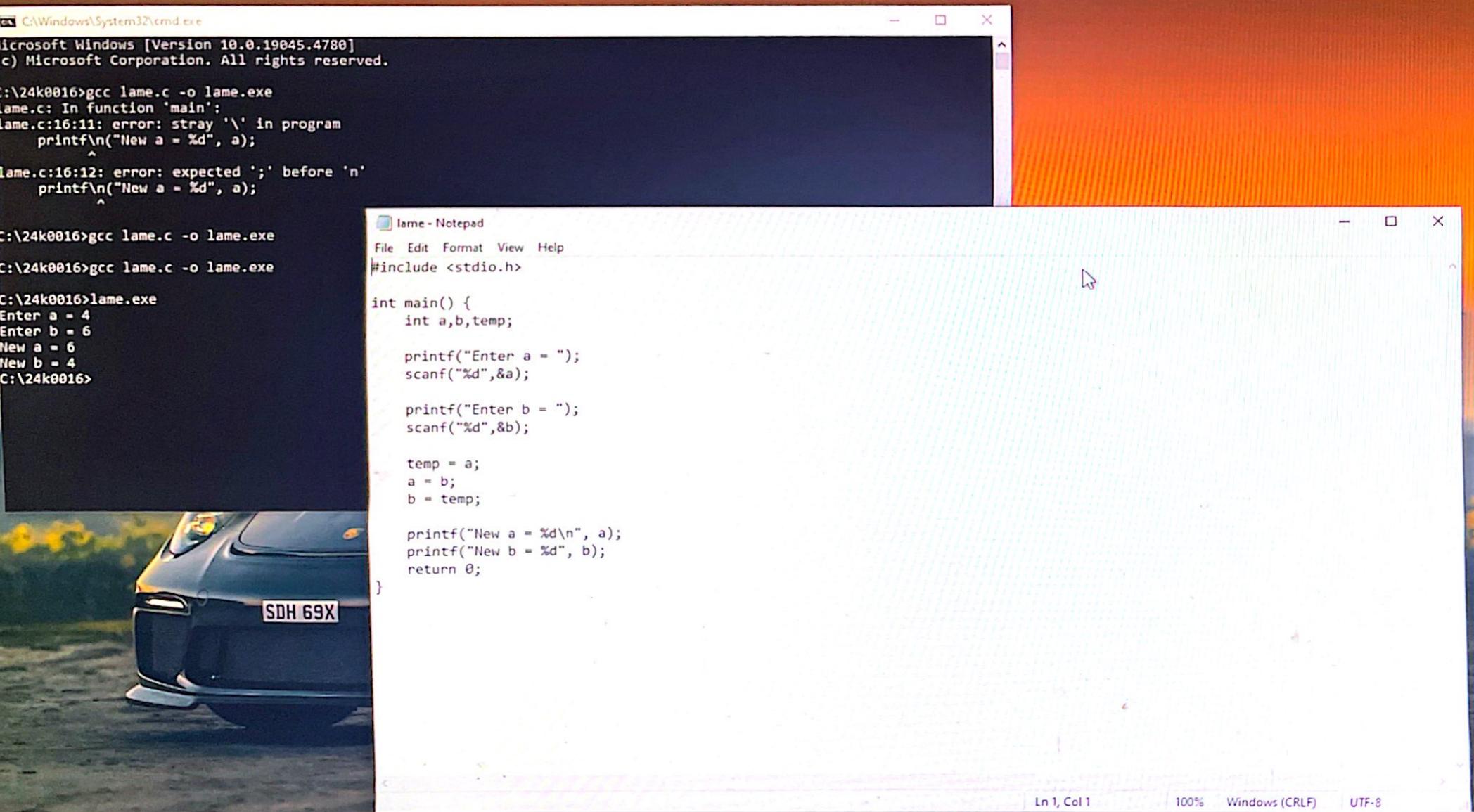
a = b

b = temp

Print "New a = a"

Print "New b = b"

End



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.4780]
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C:\24k0016>gcc lame.c -o lame.exe
lame.c: In function 'main':
lame.c:16:11: error: stray '\' in program
    printf\n("New a = %d", a);
          ^
lame.c:16:12: error: expected ';' before '\n'
    printf\n("New a = %d", a);
          ^
C:\24k0016>gcc lame.c -o lame.exe
C:\24k0016>gcc lame.c -o lame.exe
C:\24k0016>lame.exe
Enter a = 4
Enter b = 6
New a = 6
New b = 4
C:\24k0016>
```

```
lame - Notepad
File Edit Format View Help
#include <stdio.h>

int main() {
    int a,b,temp;

    printf("Enter a = ");
    scanf("%d",&a);

    printf("Enter b = ");
    scanf("%d",&b);

    temp = a;
    a = b;
    b = temp;

    printf("New a = %d\n", a);
    printf("New b = %d", b);
    return 0;
}
```

day / date:

Q3)

Start

↓  
tax rate, salary

↓  
 $\boxed{\text{tax} = \text{tax rate} \times \text{salary}}$

↓  
 $\boxed{\text{Salary after tax} = \text{Salary} - \text{tax}}$

↓  
 $\boxed{\text{tax, Salary after tax}}$

↓  
End

Start

Input tax rate, salary

tax = tax rate \* salary

Salary after tax = salary - tax

Output tax, salary after tax

End

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

```
int main() {  
  
    int salary;  
    float tax_rate;  
  
    printf("Enter Salary = ");  
    scanf("%d",&salary);
```

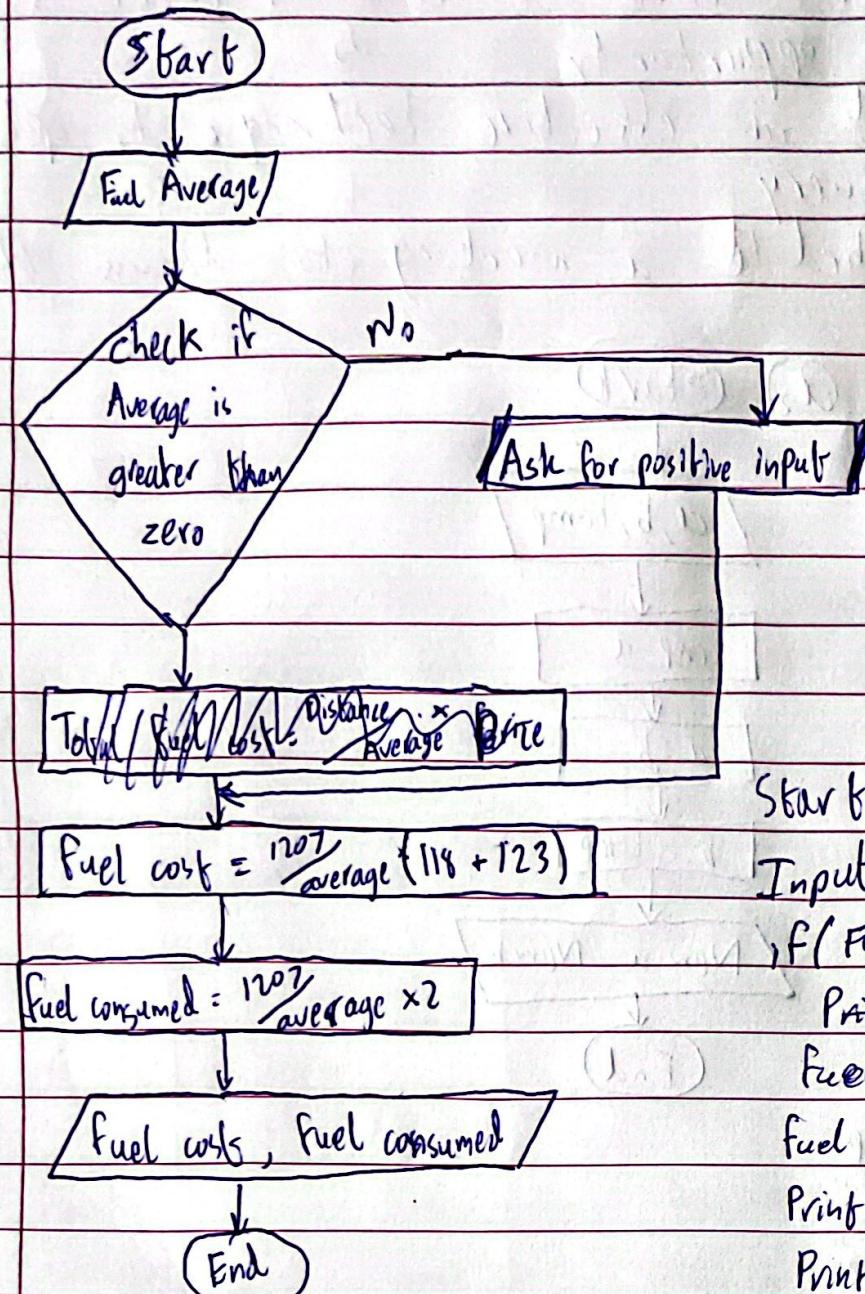
```
    printf("Enter Tax rate = ");  
    scanf("%f",&tax_rate);
```

```
    printf("Tax amount is %.1f\n", salary * tax_rate);  
    printf("Leftover Salary is %.1f", salary - (salary * tax_rate));
```

```
    return 0;  
}
```

```
C:\Windows\System32\cmd.exe  
Microsoft Windows [Version 10.0.19045.4780]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\24k0016>gcc same.c -o same.exe  
  
C:\24k0016>same.exe  
Enter Salary = 20000  
Enter Tax rate = 0.2  
Tax amount is 4000.0  
Leftover Salary is 16000.0  
C:\24k0016>
```

Q4



Start

Input Fuel Average

If Fuel Average > 0

Print "Ask fo

Fuel cost = 120% / average \* (118 + 123)

Fuel consumed = 120% / average \* 2

Print "Ask Fuel cost"

Print "Fuel average"

Else

Print "Give positive input"

End



KAGHA  
www.kaghaz.com

shame - Notepad

File Edit Format View Help

```
#include <stdio.h>

int main() {
    float avg_fuel;

    printf("Enter fuel average = ");
    scanf("%f",&avg_fuel);

    // if else is used to keep average fuel positive
    if(avg_fuel > 0)

        // Total fuel cost = Distance/mileage * fuel price
        printf("The Total fuel cost is %.1f\n", (1207/avg_fuel * 118) + (1207/avg_fuel * 123));

        // Total fuel consumed = Distance/mileage * 2 as trip was back and forth
        printf("Total fuel consumed is %f", 1207/avg_fuel * 2);

    } else

        printf("Average fuel should be greater than zero");

    return 0;
}
```

C:\Windows\System32\cmd.exe

Microsoft Windows [Version 10.0.19045.4780]  
(c) Microsoft Corporation. All rights reserved.

C:\24k0016>gcc shame.c -o shame.exe

C:\24k0016>shame.exe  
Enter fuel average = 23  
The Total fuel cost is 12647.3  
Total fuel consumed is 104.956522

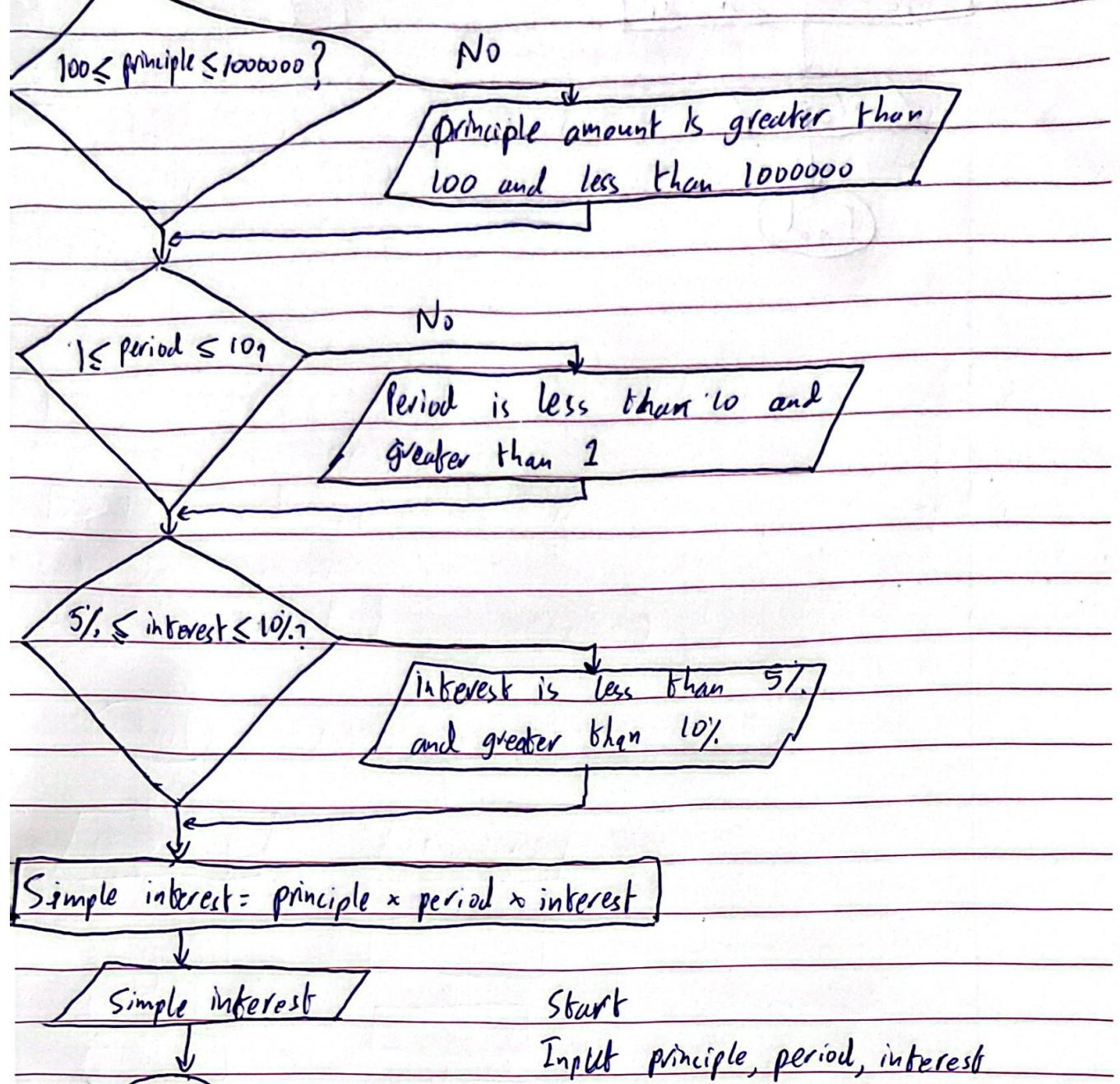
C:\24k0016>-2  
'-2' is not recognized as an internal or external command,  
operable program or batch file.

C:\24k0016>shame.exe  
Enter fuel average = -2  
Average fuel should be greater than zero

C:\24k0016>



## Principle, period, Interest



Else

Print "Give appropriate inputs"

chain - Notepad  
File Edit Format View Help

```
#include <stdio.h>

int main()
{
    float principle,time,interest;

    printf("Enter principle amount = ");
    scanf("%f",&principle);

    printf("Enter period = ");
    scanf("%f",&time);

    printf("Enter interest = ");
    scanf("%f",&interest);

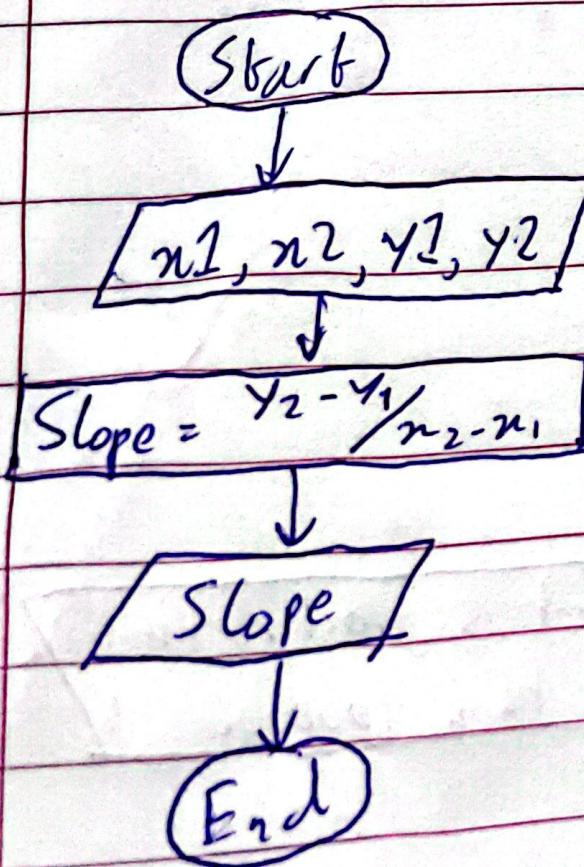
    // if else is used to check if each value corresponds to it's given range
    if(principle >= 100 && principle <= 1000000 && time >= 1 && time <= 10 && interest >= 0.05 && interest <= 0.1)
    {
        printf("The simple interst is %.1f", principle * time * interest);
    }
    else
    {
        printf("Check if the principle amount, period, or interest is within range");
    }
}
```

C:\Windows\System32\cmd.exe  
Microsoft Windows [Version 10.0.19045.4780]  
(c) Microsoft Corporation. All rights reserved.  
C:\24k0016>gcc chain.c -o chain.exe  
C:\24k0016>chain.c  
C:\24k0016>chain.exe  
Enter principle amount = 1000  
Enter period = 5  
Enter interest = 4  
Check if the principle amount, period, or interest is within range  
C:\24k0016>chain.exe  
Enter principle amount = 1000  
Enter period = 5  
Enter interest = 0.06  
The simple interst is 300.0  
C:\24k0016>



day / date:

Q6)



Start

Input  $x_1, x_2, y_1, y_2$

$$\text{Slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

Prnts "Slope"

End

```
C:\Windows\System32\cmd.exe [13:49:19 2023-06-16] Microsoft Windows [Version 10.0.19045.4780]
(c) Microsoft Corporation. All rights reserved.

C:\24k0016>gcc fame.c -o fame.exe
C:\24k0016>fame.exe
x1 = 6
x2 = 4
y1 = 7
y2 = 3
The slope is 2.000
C:\24k0016>
```

fame - Notepad

```
File Edit Format View Help
#include <stdio.h>

int main()
{
    float x1,x2,y1,y2;

    printf("x1 = ");
    scanf("%f",&x1);

    printf("x2 = ");
    scanf("%f",&x2);

    printf("y1 = ");
    scanf("%f",&y1);

    printf("y2 = ");
    scanf("%f",&y2);

    // slope formula is scanned directly
    printf("The slope is %.3f", (y2-y1) / (x2 - x1));

    return 0;
}
```

Ln 1, Col 1      100%      Windows (CRLF)      UTF-8

