

Mathmathical Problem Solution C programme

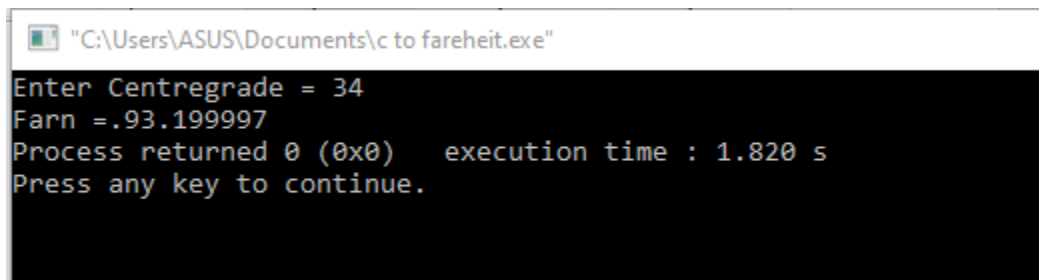
1. Write a complete C program to convert a temperature from Celsius to Fahrenheit.

Input:

```
#include<stdio.h>

int main()
{
float c,F;
printf("Enter Centregrade = ");
scanf("%f",&c);
F = (c* 1.8)+32;
printf("Farn =.%.2f",F);
}
```

Output:

A screenshot of a Windows command prompt window. The title bar shows the file path "C:\Users\ASUS\Documents\c to fareheit.exe". The command prompt displays the following text: "Enter Centregrade = 34", "Farn =.93.199997", "Process returned 0 (0x0) execution time : 1.820 s", and "Press any key to continue.".

```
"C:\Users\ASUS\Documents\c to fareheit.exe"
Enter Centregrade = 34
Farn =.93.199997
Process returned 0 (0x0) execution time : 1.820 s
Press any key to continue.
```

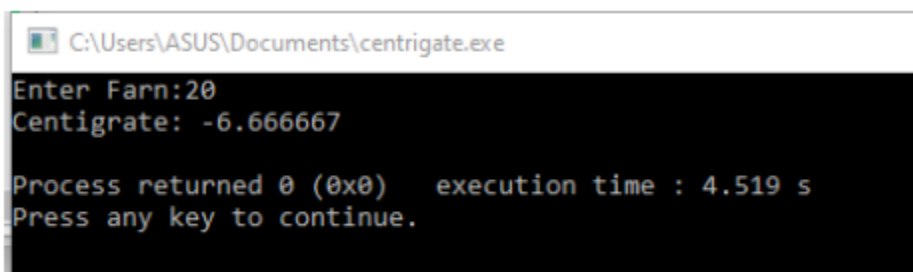
2. Write a complete C program to convert temperature from Fahrenheit to Celsius.

Input:

```
#include<stdio.h>

int main()
{
float c,F;
printf("Enter Centregrade=");
scanf("%f",&c);
F = (C * 1.8)/5
printf("%f",A);
}
```

Output:



```
C:\Users\ASUS\Documents\centrigate.exe
Enter Farn:20
Centigrate: -6.666667

Process returned 0 (0x0)   execution time : 4.519 s
Press any key to continue.
```

3. Write a complete C program to find the temperature T from the following equation: $PV = nRT$. Where, P, V, n, R represents pressure, volume, amount of substance and ideal gas constant. $R = 8.314 \text{ J/mol}\cdot\text{K}$.

Input:

```
#include<Stdio.h>

int main()
{
float P,V , n , R, T;
printf("Pressure=");
scanf("%f",&P);
printf("Volume=");
scanf("%f",&V);
printf("Amount of substance=");
scanf("%f",&n);
T=(P * V) / (n * 8.314);
printf("temperature: %.3f\n",T);
}
```

Output:

 "C:\Users\User\Desktop\lab 3 s.exe"

```
Pressure=10
Volume=20
Amount of substance=35
temperature: 0.687309

Process returned 0 (0x0)   execution time : 11.70
Press any key to continue.
```

4. Write a C programme to quadratic equation $ax^2 + bx + c = 0$

Input:

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

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

```
int main()
```

```
{
```

```
    float a,b,c,x1,x2;
```

```
    printf(" a = ");
```

```
    scanf("%f",&a);
```

```
    printf(" b = ");
```

```
    scanf("%f",&b);
```

```
    printf(" c = ");
```

```
    scanf("%f",&c);
```

```
    x1 = (-b + sqrt(b * b - 4 * a * c)) / ( 2 * a );
```

```
    x2 = (-b - sqrt(b * b - 4 * a * c)) / ( 2 * a );
```

```
    printf("%f",x1,"\n");
```

```
    printf("%f",x2,"\n");
```

```
}
```

Output:

```
"C:\Users\ASUS\Documents\equation 1.exe"
a = 1
b = 11
c = 21
-2.458619-8.541381
Process returned 0 (0x0) execution time : 5.287 s
Press any key to continue.
```

5. Write a C programme to raise power.

Input:

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

```
int main()
```

```
{
```

```
    int x,y;
```

```
    printf("Enter x =");
```

```
    scanf("%d",&x);
```

```
    printf("Enter y =");
```

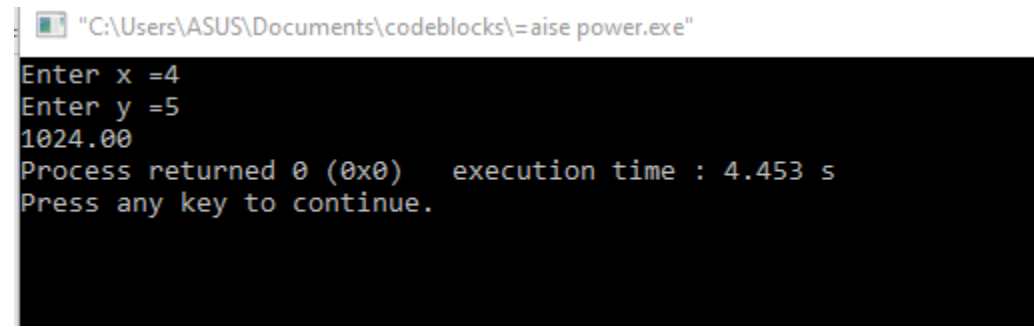
```
    scanf("%d",&y);
```

```
    double result=pow(x,y);
```

```
    printf("%.2lf",result);
```

```
}
```

Output:



The screenshot shows a Windows command prompt window with the title bar text: "C:\Users\ASUS\Documents\codeblocks\aise power.exe". The command prompt displays the following text:

```
Enter x =4  
Enter y =5  
1024.00  
Process returned 0 (0x0)   execution time : 4.453 s  
Press any key to continue.
```