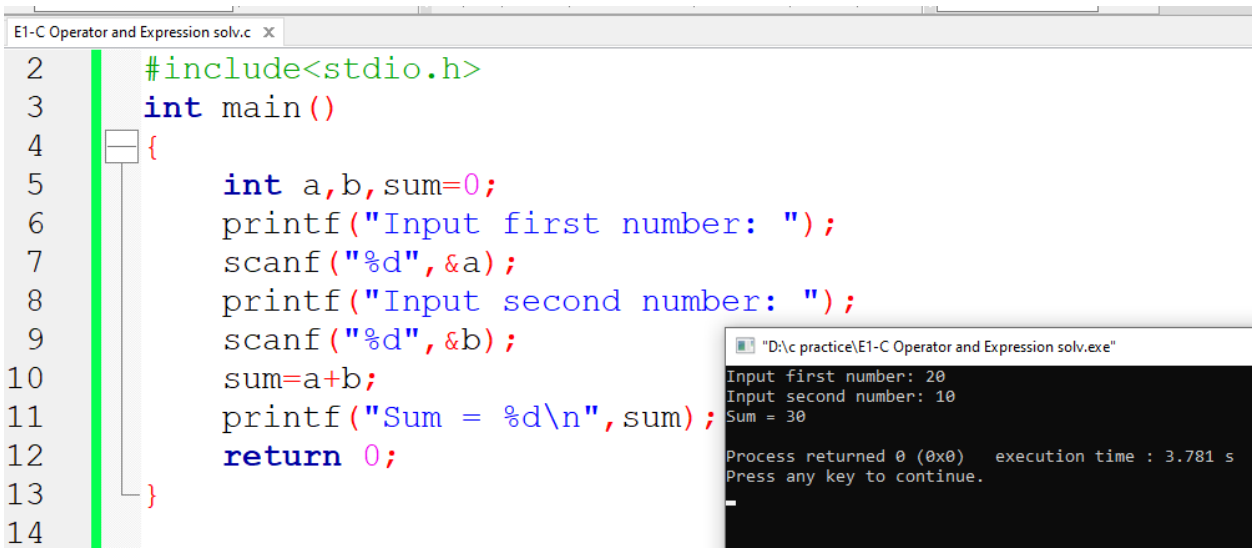
E1-C Programming Exercises Operator and Expression

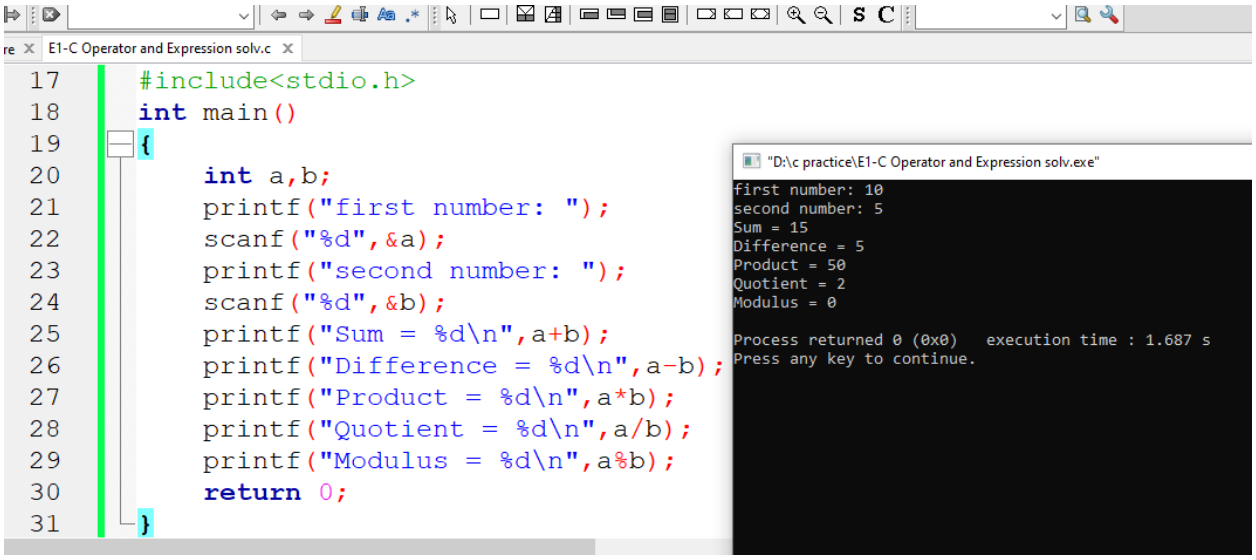
1. Write a C program to input two numbers from user and calculate their sum.

```
#include<stdio.h>

int main()

{

   int a,b,sum=0;

   printf("Input first number: ");

   scanf("%d",&a);

   printf("Input second number: ");

   scanf("%d",&b);

   sum=a+b;

   printf("Sum = %d\n",sum);

   return 0;

}
```



2. Write a C program to input two numbers and perform all arithmetic operations.

```
#include<stdio.h>

int main()

{

   int a,b;

   printf("first number: ");

   scanf("%d",&a);

   printf("second number: ");

   scanf("%d",&b);

   printf("Sum = %d\n",a+b);

   printf("Difference = %d\n",a-b);

   printf("Product = %d\n",a*b);

   printf("Quotient = %d\n",a/b);

   printf("Modulus = %d\n",a%b);

   return 0;

}
```



3. Write a C program to input length and width of a rectangle and calculate perimeter of the rectangle.

```
#include<stdio.h>

int main()

{

   int a,b;

   printf("Enter length: ");

   scanf("%d",&a);

   printf("Enter width: ");

   scanf("%d",&b);

   printf("Perimeter of rectangle = %d\n",2*(a+b));

   return 0;

}
```

E1-C Operator and Expression solv.c

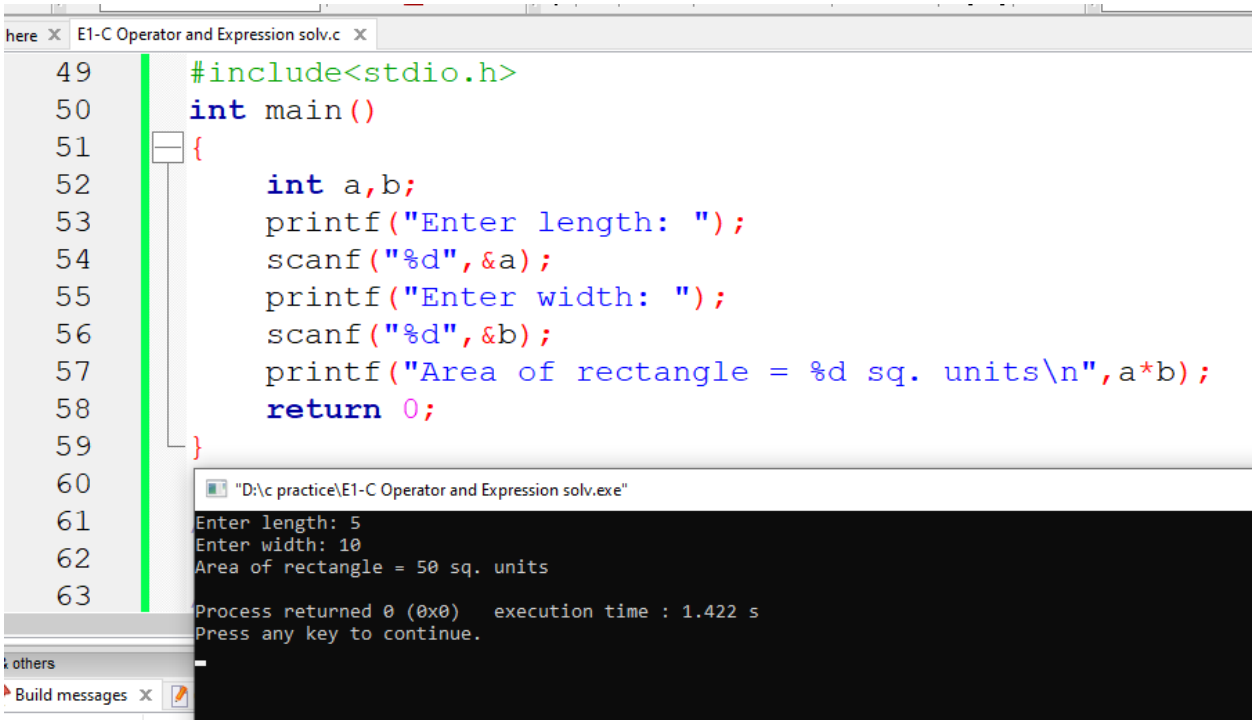
```
34
35  #include<stdio.h>
36  int main()
37  {
38      int a,b;
39      printf("Enter length: ");
40      scanf("%d",&a);
41      printf("Enter width: ");
42      scanf("%d",&b);
43      printf("Perimeter of rectangle = %d\n",2*(a+b));
44      return 0;
45  }
46
```

"D:\c practice\E1-C Operator and Expression solv.exe"

```
Enter length: 5
Enter width: 10
Perimeter of rectangle = 30

Process returned 0 (0x0)   execution time : 1.766 s
Press any key to continue.
```

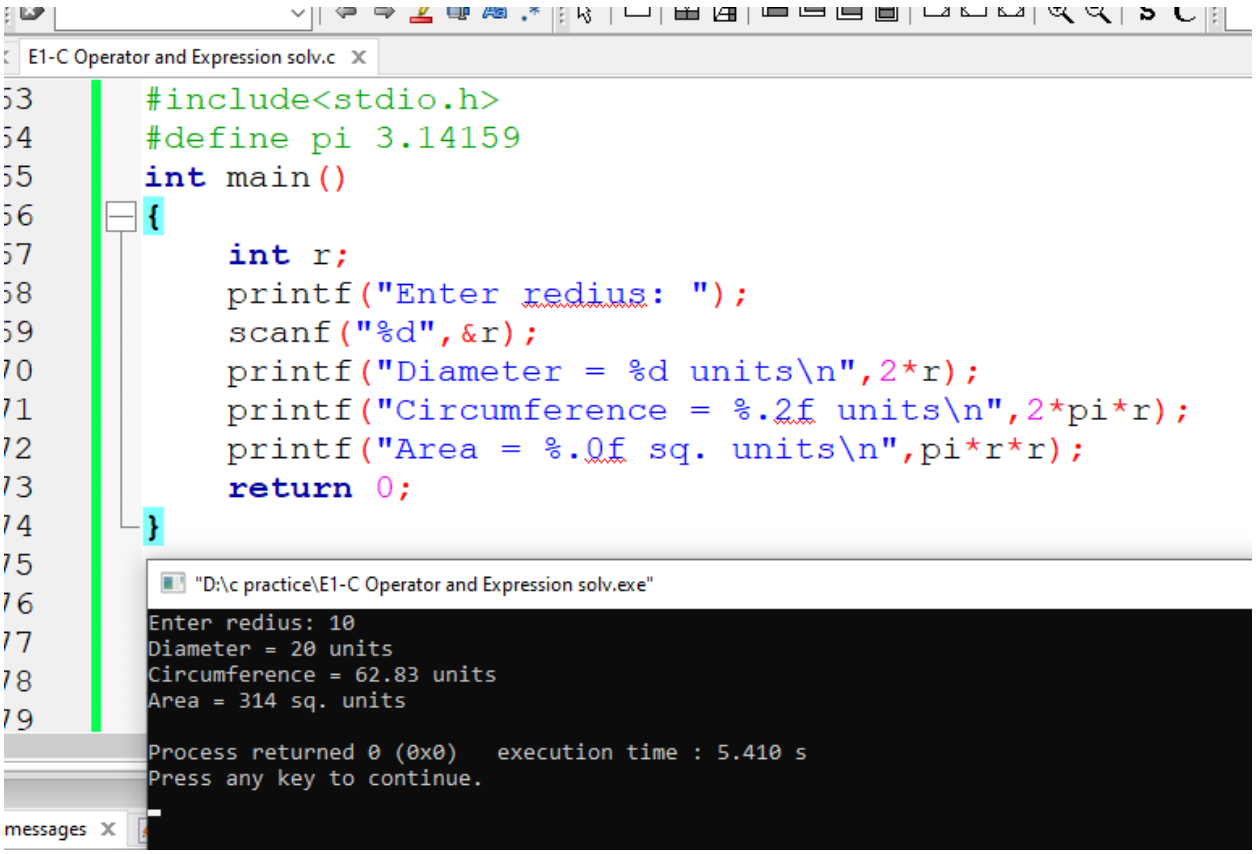
4. Write a C program to input length and width of a rectangle and find area of the given rectangle.

```
#include<stdio.h>

int main()

{

   int a,b;

   printf("Enter length: ");

   scanf("%d",&a);

   printf("Enter width: ");

   scanf("%d",&b);

   printf("Area of rectangle = %d sq. units\n",a*b);

   return 0;

}
```



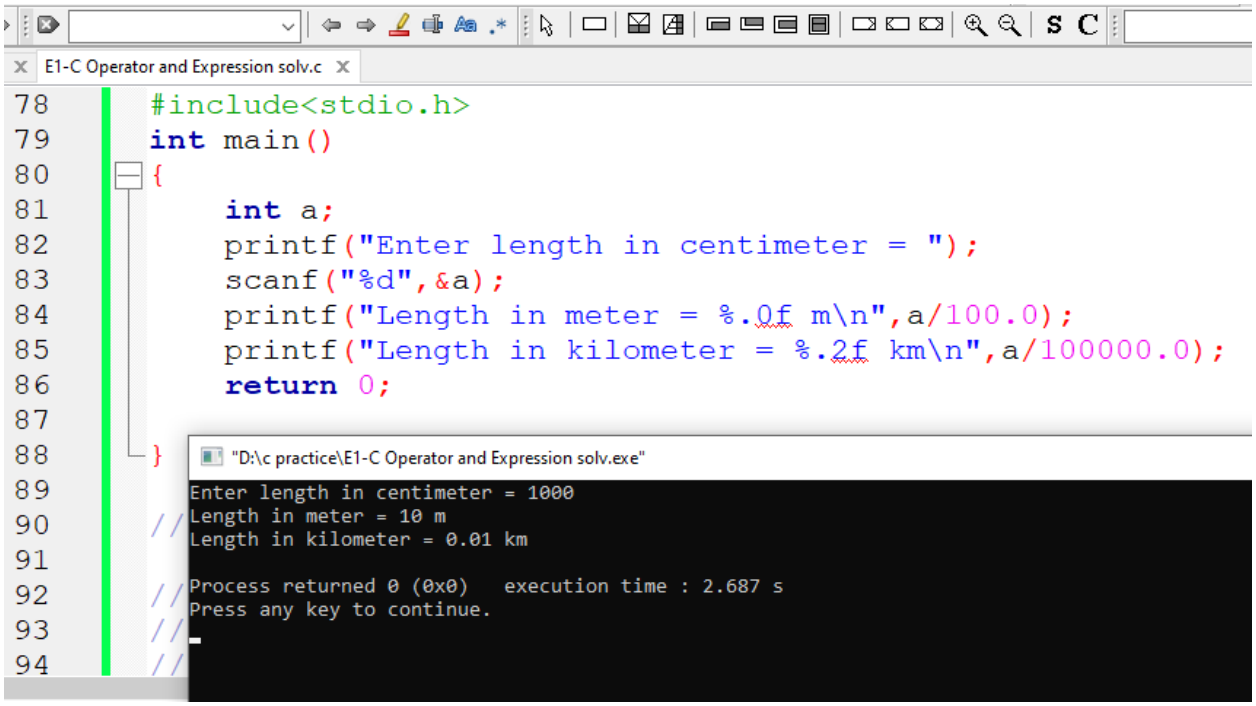
5. Write a C program to input radius of a circle from user and find diameter, circumference and area of the circle.

```
#include<stdio.h>

#define pi 3.14159

int main()

{

   int r;

   printf("Enter redius: ");

   scanf("%d",&r);

   printf("Diameter = %d units\n",2*r);

   printf("Circumference = %.2f units\n",2*pi*r);

   printf("Area = %.0f sq. units\n",pi*r*r);

   return 0;

}
```



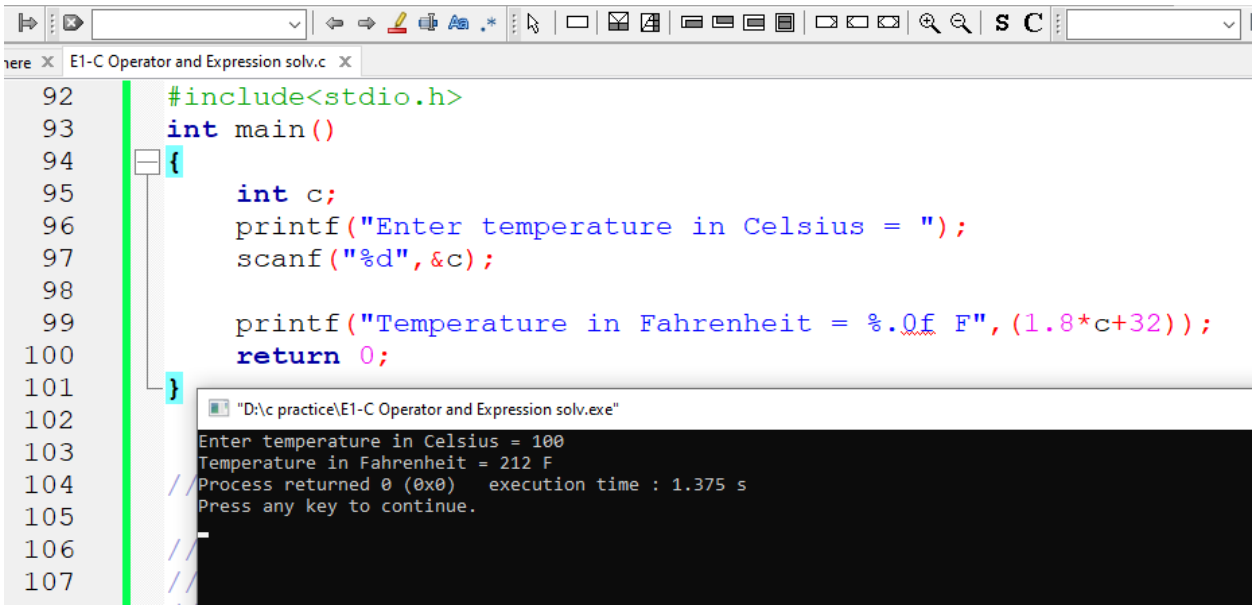
6. Write a C program to input length in centimeter and convert it to meter and kilometer.

```
#include<stdio.h>

int main()

{

   int a;

   printf("Enter length in centimeter = ");

   scanf("%d",&a);

   printf("Length in meter = %.0f m\n",a/100.0);

   printf("Length in kilometer = %.2f km\n",a/100000.0);

   return 0;

}
```



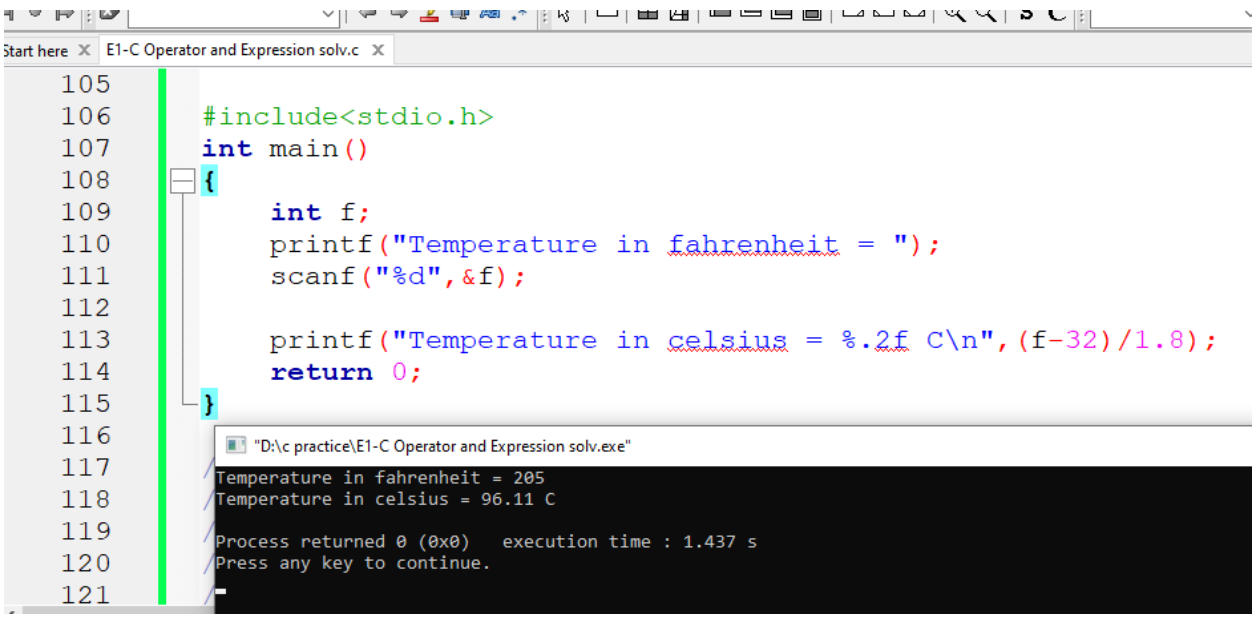
7.Write a C program to input temperature in Centigrade and convert to Fahrenheit.

```
#include<stdio.h>

int main()

{

   int c;

   printf("Enter temperature in Celsius = ");

   scanf("%d",&c);


   printf("Temperature in Fahrenheit = %.0f F",(1.8*c+32));

   return 0;

}
```



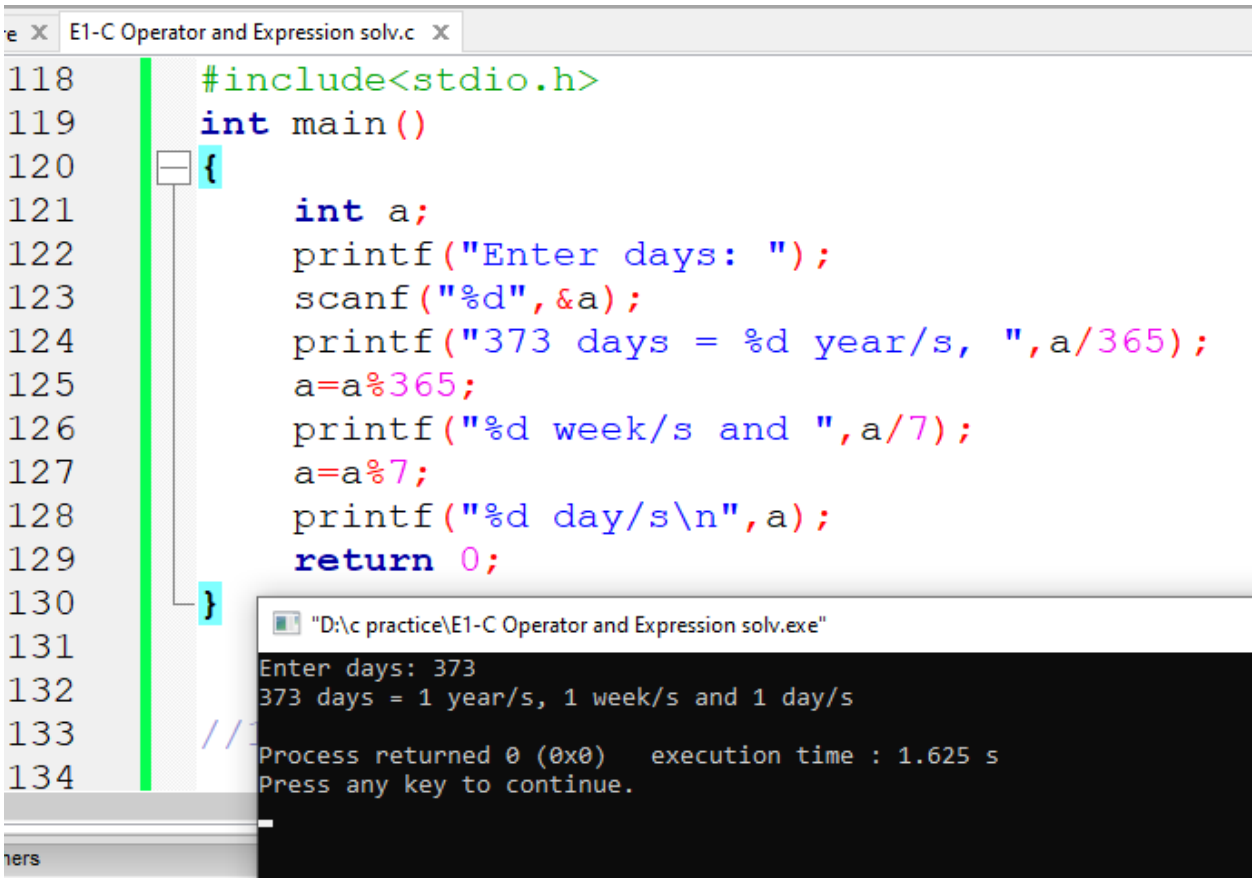
8.Write a C program to input temperature in degree Fahrenheit and convert it to degree Centigrade.

```
#include<stdio.h>

int main()

{

   int f;

   printf("Temperature in fahrenheit = ");

   scanf("%d",&f);


   printf("Temperature in celsius = %.2f C\n",(f-32)/1.8);

   return 0;

}
```



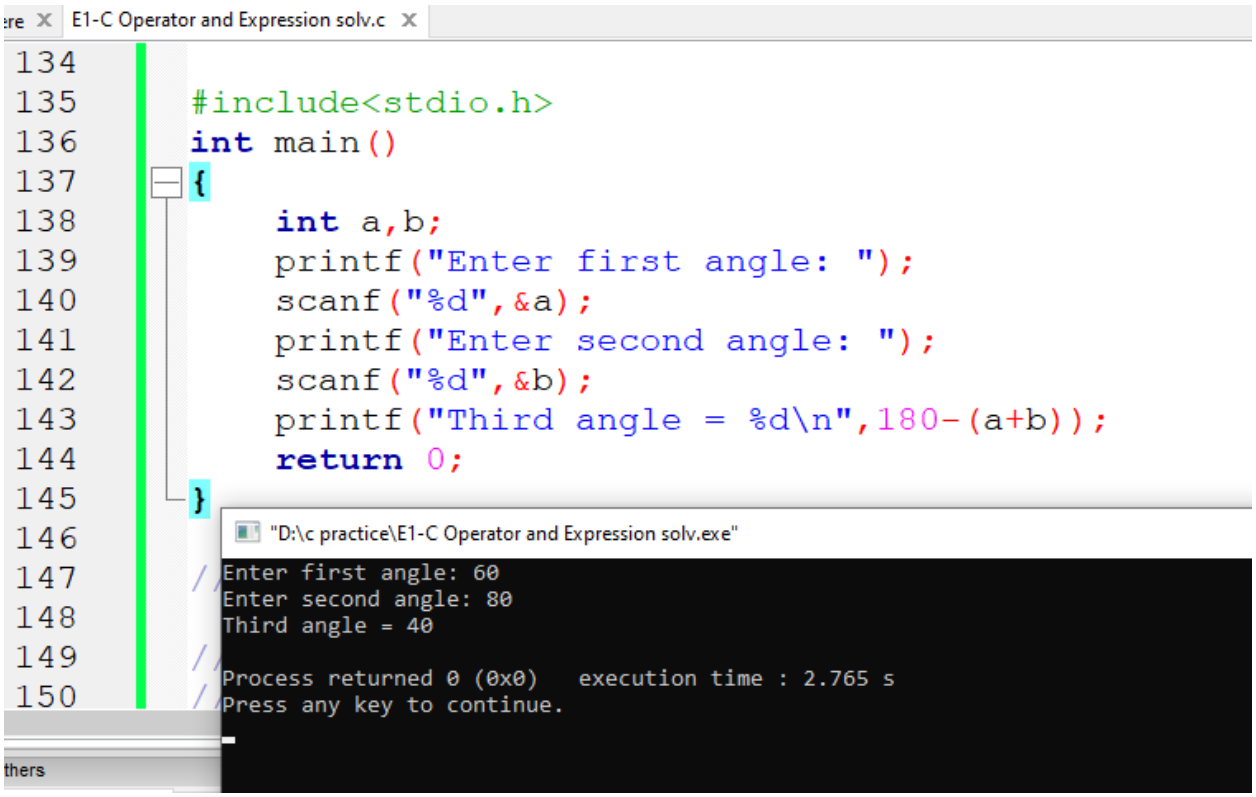
9. Write a C program to input number of days from user and convert it to years, weeks and days.

```
int main()
{
   int a;
   printf("Enter days: ");
   scanf("%d",&a);
   printf("373 days = %d year/s, ",a/365);
   a=a%365;
   printf("%d week/s and ",a/7);
   a=a%7;
   printf("%d day/s\n",a);
   return 0;
}
```



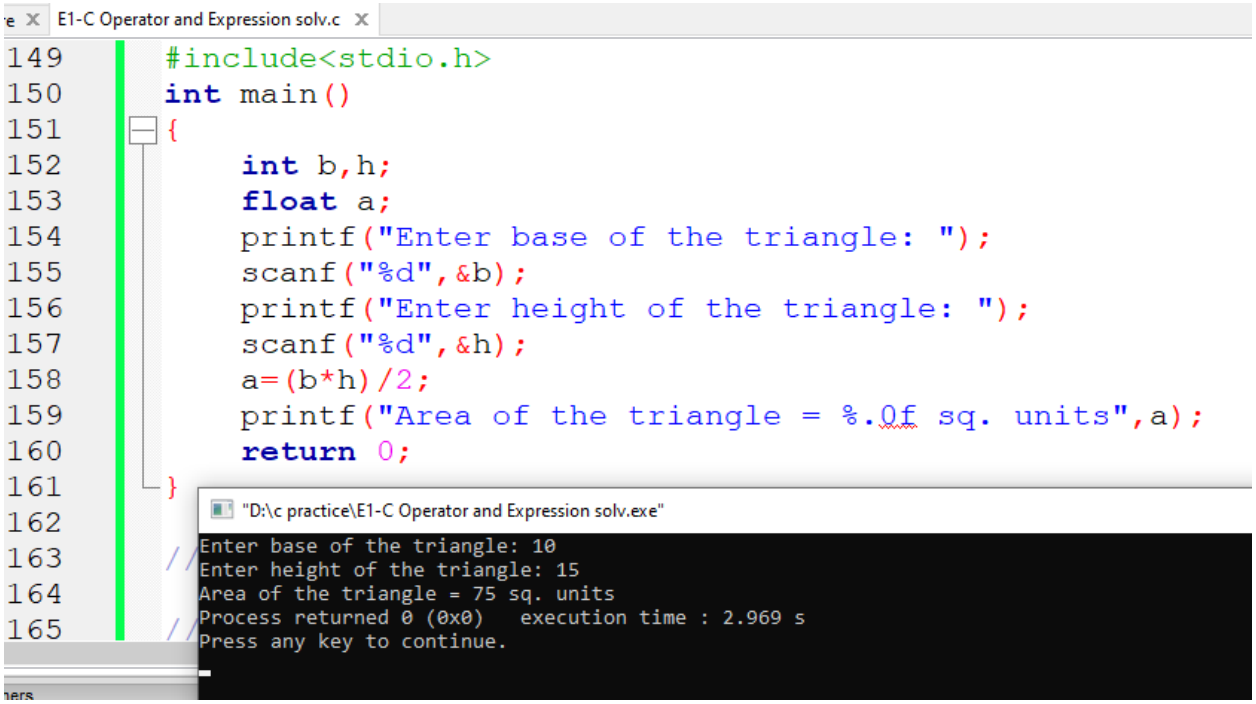
10. Write a C Program to input two angles from user and find third angle of the triangle.

```
#include<stdio.h>

int main()

{

   int a,b;

   printf("Enter first angle: ");

   scanf("%d",&a);

   printf("Enter second angle: ");

   scanf("%d",&b);

   printf("Third angle = %d\n",180-(a+b));

   return 0;

}
```



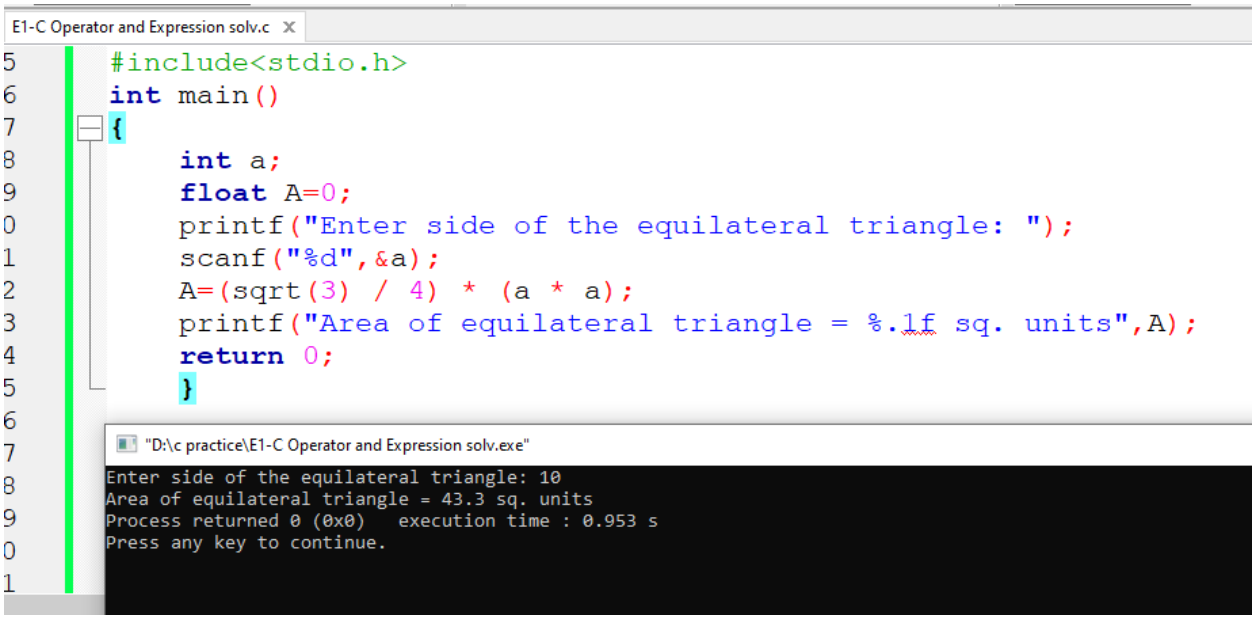
11. Write a C program to input base and height of a triangle and find area of the given triangle.

```
#include<stdio.h>

int main()

{

   int b,h;

   float a;

   printf("Enter base of the triangle: ");

   scanf("%d",&b);

   printf("Enter height of the triangle: ");

   scanf("%d",&h);

   a=(b*h)/2;

   printf("Area of the triangle = %.0f sq. units",a);

   return 0;

}
```



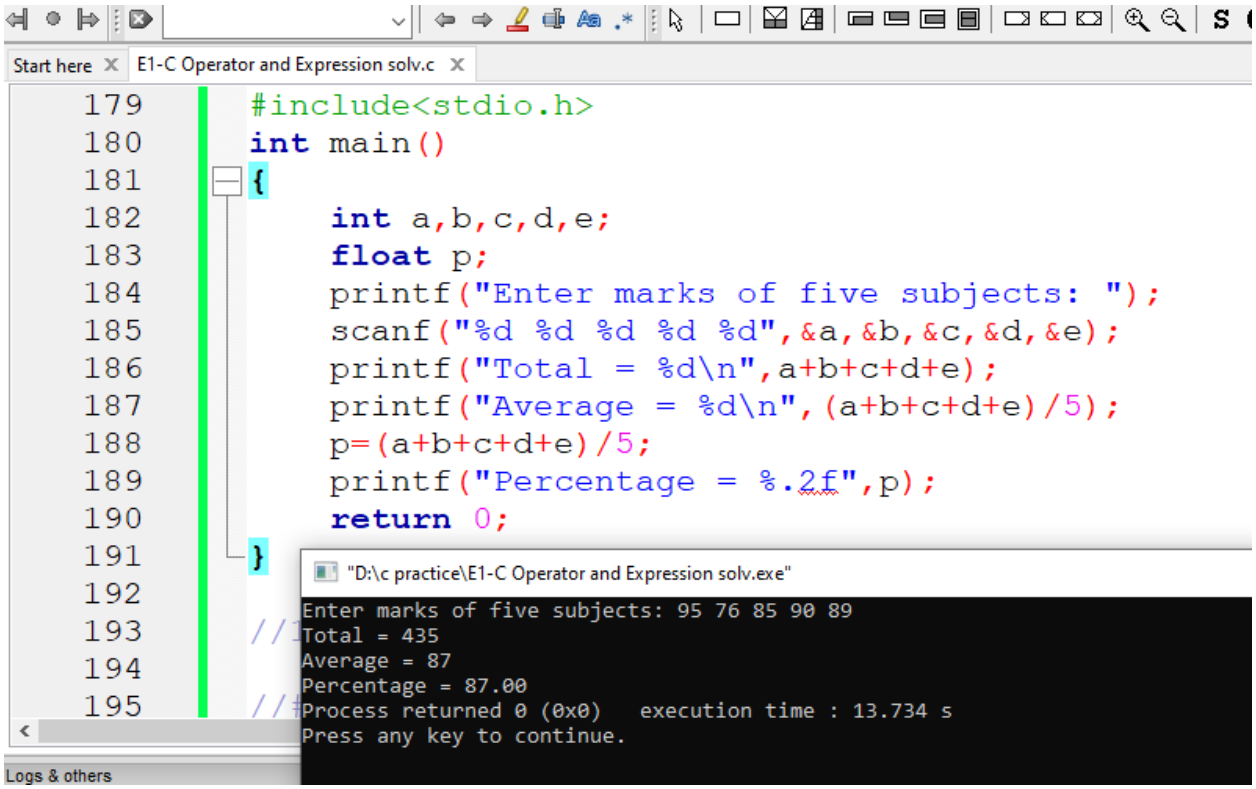
12. Write a C program to input side of an equilateral triangle from user and find area of the given triangle.

```
#include<stdio.h>

int main()

{

   int a;

   float A=0;

   printf("Enter side of the equilateral triangle: ");

   scanf("%d",&a);

   A=(sqrt(3) / 4) * (a * a);

   printf("Area of equilateral triangle = %.1f sq. units",A);

   return 0;

   }
```



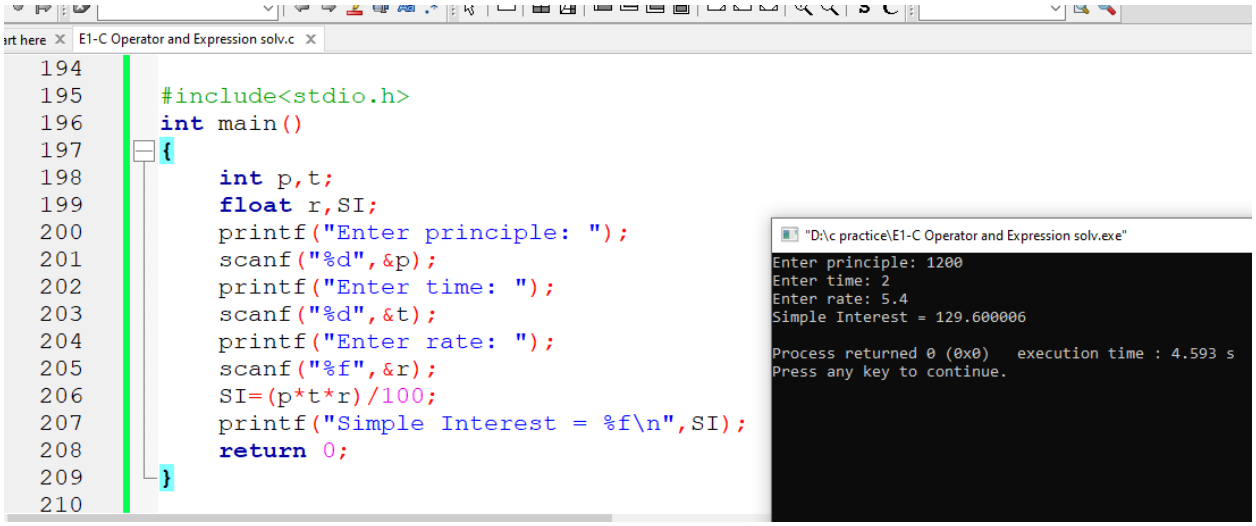
13. Write a C program to input marks of five subjects of a student and calculate total, average and percentage of all subjects.

```
#include<stdio.h>

int main()

{

   int a,b,c,d,e;

   float p;

   printf("Enter marks of five subjects: ");

   scanf("%d %d %d %d %d",&a,&b,&c,&d,&e);

   printf("Total = %d\n",a+b+c+d+e);

   printf("Average = %d\n",(a+b+c+d+e)/5);

   p=(a+b+c+d+e)/5;

   printf("Percentage = %.2f",p);

   return 0;

}
```



14. Write a C program to input principle, time and rate (P, T, R) from user and find Simple Interest.

```
#include<stdio.h>

int main()

{

   int p,t;

   float r,SI;

   printf("Enter principle: ");

   scanf("%d",&p);

   printf("Enter time: ");

   scanf("%d",&t);

   printf("Enter rate: ");

   scanf("%f",&r);

   SI=(p*t*r)/100;

   printf("Simple Interest = %f\n",SI);

   return 0;

}
```



15. Write a C program to input principle (amount), time and rate (P, T, R) and find Compound Interest.

```
#include<math.h>

#include<stdio.h>

int main()

{

  int p,t;

  float r,CI=0,x;

  printf("Enter principle (amount): ");

  scanf("%d",&p);

  printf("Enter time: ");

  scanf("%d",&t);

  printf("Enter rate: ");

  scanf("%f",&r);

  x=(1+r*0.01);

  CI=p*pow(x,t);

  printf("Compound Interest = %f\n",CI);

   return 0;

}
```