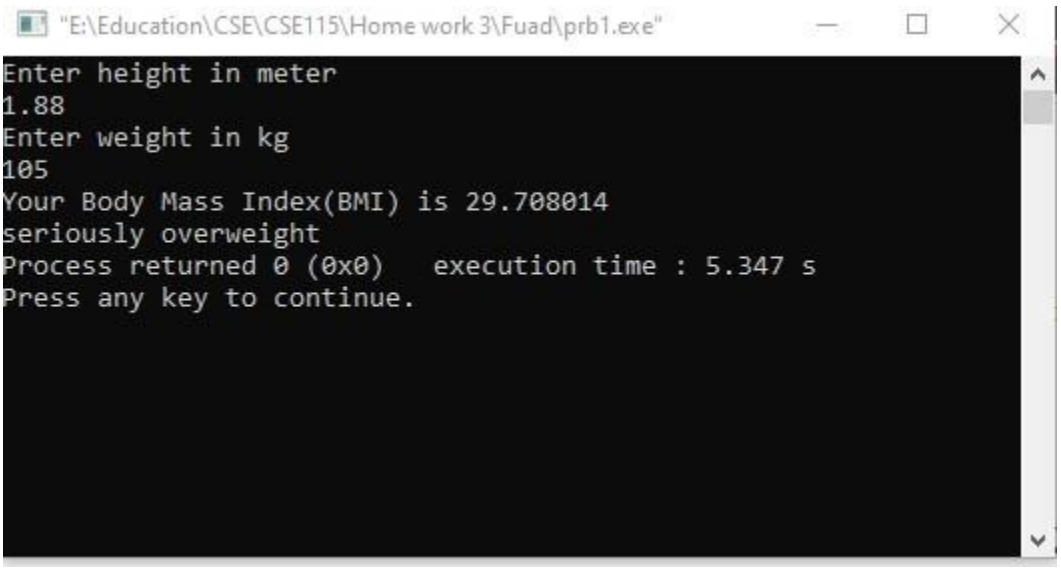
Task 1

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

int main()
{
float  height, weight, bmi;

   printf("Enter height in meter\n");
   scanf("%f", &height);

   printf("Enter weight in kg\n");
   scanf("%f", &weight);

   bmi = weight / (height * height);

   printf("Your Body Mass Index(BMI) is %f\n", bmi);


   if(bmi<16){
   printf("Dangerously underweight");
     return 0;
  }

    else if (bmi<19){
    printf("Underweight");
    return 0;
 }
```

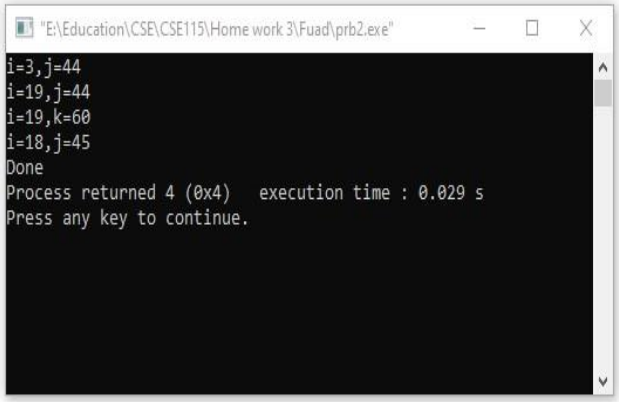
```
   else if (bmi<24){
   printf("Normal weight");
   return 0;
 }



   else if (bmi<29){
   printf("over weight");
   return 0;
  }


   printf("seriously overweight");
  }
```

Output



Task 2

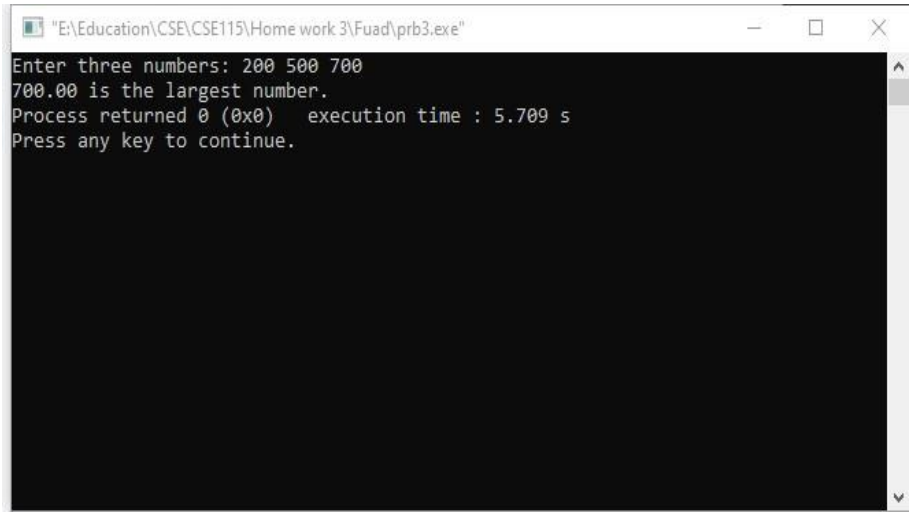
```c
#include<stdio.h>
void main(){
int i=14>>2,j=11<<2;

printf("i=%d,j=%d\n",i,j);
if(i>2){
i=i | 16;
printf("i=%d,j=%d\n",i,j);
}
int k=0;
k=j|16;

printf("i=%d,k=%d\n",i,k);
if(j%2){
j=j&16;
printf("i=%d,j=%d\n",i,j);
}
if(i>j)
printf("i=%d,j=%d\n",++i,--j);
else printf("i=%d,j=%d\n",--i,++j);


printf("Done");
}
```



Task 3

```
#include <stdio.h>
int main() {
   double n1, n2, n3;
   printf("Enter three numbers: ");
   scanf("%lf %lf %lf", &n1, &n2, &n3);
   if (n1 >= n2) {
      if (n1 >= n3)
         printf("%.2lf is the largest number.", n1);
      else
         printf("%.2lf is the largest number.", n3);
   } else {
      if (n2 >= n3)
         printf("%.2lf is the largest number.", n2);
      else
         printf("%.2lf is the largest number.", n3);
   }
   return 0;
}
```

Output



Task 4

```
#include<stdio.h>
#include<conio.h>
int main()
{
float noOfCall, tempNoOfCall, charge;
printf("Enter the number of minutes talked in phone: ");
scanf("%f", &noOfCall);
printf("\n");
float bill=0;
if(noOfCall>=95)
{
charge = (5 * 0.3)+(30 * 0.5)+(60 * 0.75 )+((noOfCall-5-30-60) * 1) ;
noOfCall=0;
}

else if(noOfCall>=35)
{
charge = (5 * 0.3)+(30 * 0.5)+((noOfCall-5-30) * 0.75) ;
noOfCall=0;
}

else if(noOfCall>=5)
{
charge = (5 * 0.3)+((noOfCall-5)*0.5);
noOfCall=0;
}

else if(noOfCall>=0)
```

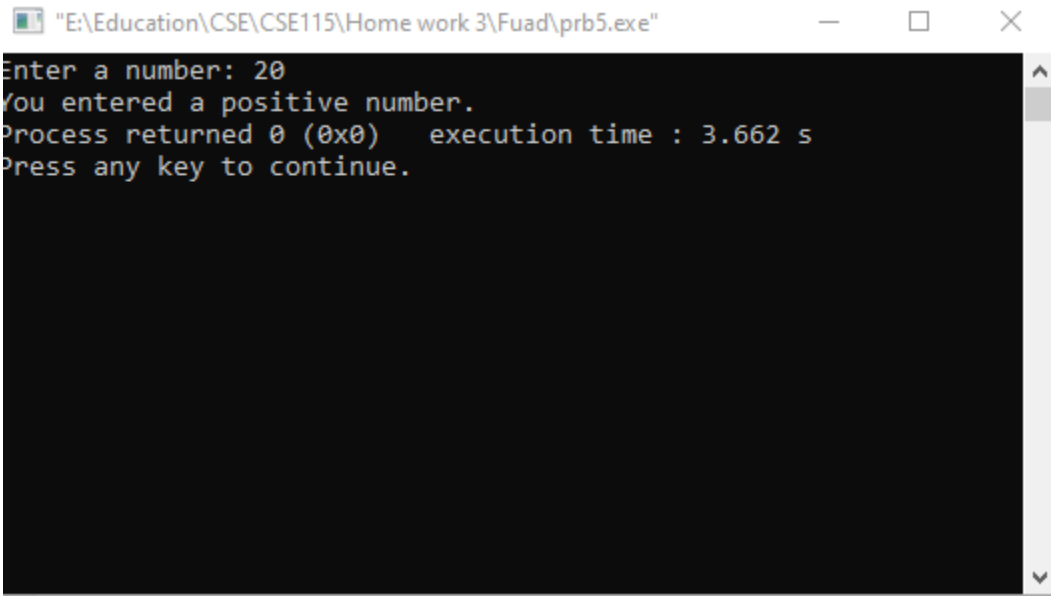
```
{
charge = (noOfCall * 0.3);


noOfCall=0;
}
charge = 1.15*charge;
printf("The charge you have to paid = %f taka", charge);


getch();
return 0;
}
```

Output

Task 5

```
#include <stdio.h>
int main() {
   double num;
   printf("Enter a number: ");
   scanf("%lf", &num);
   if (num <= 0.0) {
      if (num == 0.0)
         printf("You entered 0.");
      else
         printf("You entered a negative number.");
   } else
      printf("You entered a positive number.");
   return 0;
}
```

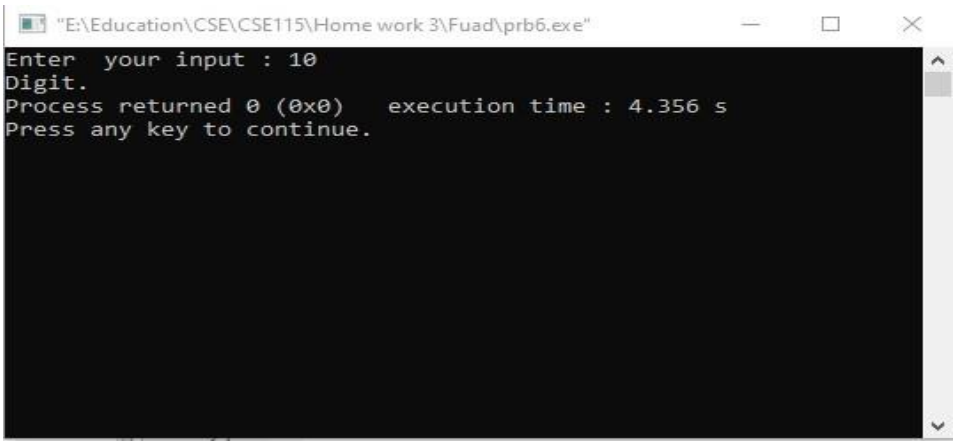
Output



Task 6

```
#include<stdio.h>
int main()
{ char n;    //declare a variable
  printf("Enter a your input : ");
  scanf("%c",&n);
  if(n>='0' && n<='9')   //check for digit
  {
    printf("Digit.");
  }
else   if(n>='A' && n<='Z')    //check for uppercase
  {
     printf("Uppercase alphabet .");
  }
  else if(n>='a' && n<='z')    //check for lowercase
  {
     printf("Lowercase alphabet.");
  }
  return 0;
}
```

Output



Task 7

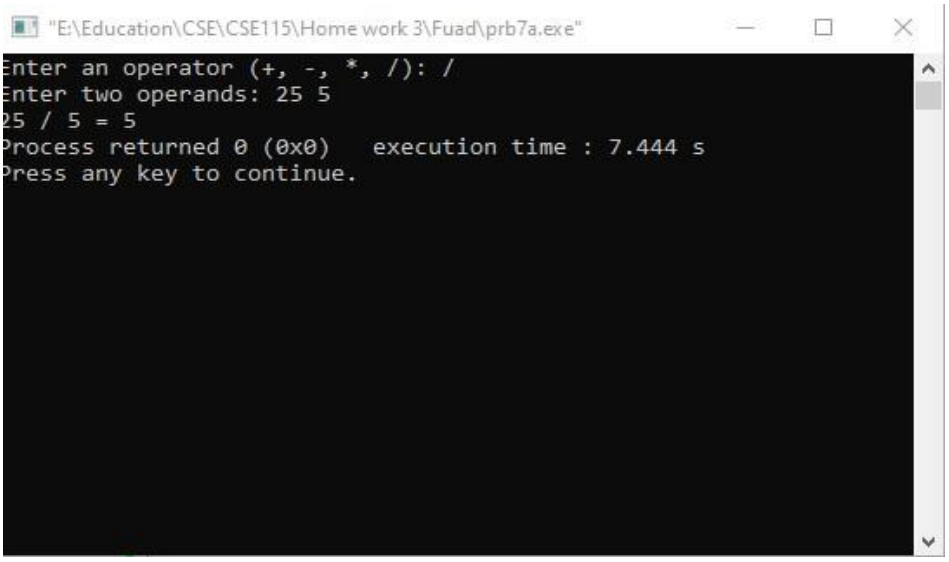
Part a:

```
#include <stdio.h>
int main() {
char op;
int num1, num2;
printf("Enter an operator (+, -, *, /): ");
scanf("%c", &op);
printf("Enter two operands: ");
scanf("%d %d", &num1, &num2);

switch (op) {
   case '+':
     printf("%d + %d = %d", num1, num2, num1 + num2);
     break;
   case '-':
     printf("%d - %d = %d", num1, num2, num1 - num2);
     break;
   case '*':
     printf("%d * %d = %d", num1, num2, num1 * num2);
     break;
   case '/':
     printf("%d / %d = %d", num1, num2, num1 / num2);
     break;
   // operator doesn't match any case constant
   default:
     printf("Error! operator is not correct");
}
```

return 0;

}

Output:

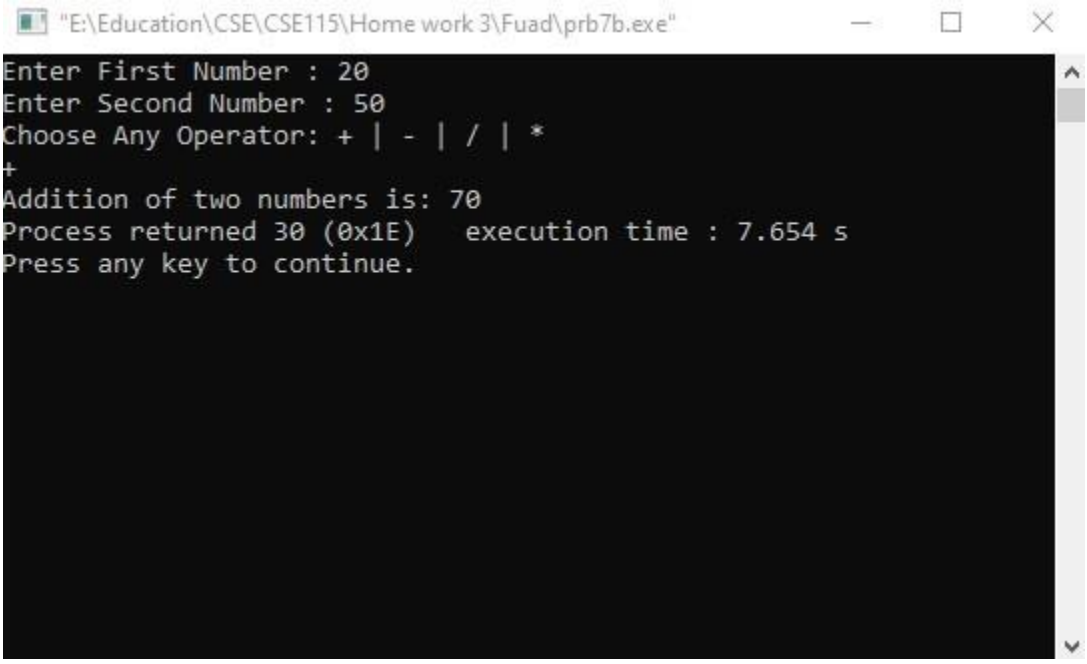


Part B

```
#include<stdio.h>
void main()
{
   int num1, num2, cal; //decleration of integer variables
   char ope; //decleration of character variables
   printf("Enter First Number : ");
   scanf("%d", &num1); //Getting the first value from user
   printf("Enter Second Number : ");
   scanf("%d", &num2); //Getting the second value from user
   printf("Choose Any Operator: + | - | / | * \n");
   scanf(" %c", &ope); // getting the operator for operation from user

// Applying if-else condition to check conditions
```

```
if(ope == '+')
{
cal= num1 + num2;
printf("Addition of two numbers is: %d",cal);
}
else if(ope == '-')
{
cal= num1 - num2;
printf("Subtraction of two numbers is: %d",cal);
}
else if(ope == '/')
{
cal= num1 / num2;
printf("Division of two numbers is: %d",cal);
}
else if(ope == '*' )
{
cal= num1 * num2;
printf("Multiplication of two numbers is: %d",cal);
}
else
{
printf("Invalid Input");
}
}
```

Output:


"E:\Education\CSE\CSE115\Home work 3\Fuad\prb7b.exe"
Enter First Number : 20
Enter Second Number : 50
Choose Any Operator: + | - | / | *
+
Addition of two numbers is: 70
Process returned 30 (0x1E)   execution time : 7.654 s
Press any key to continue.

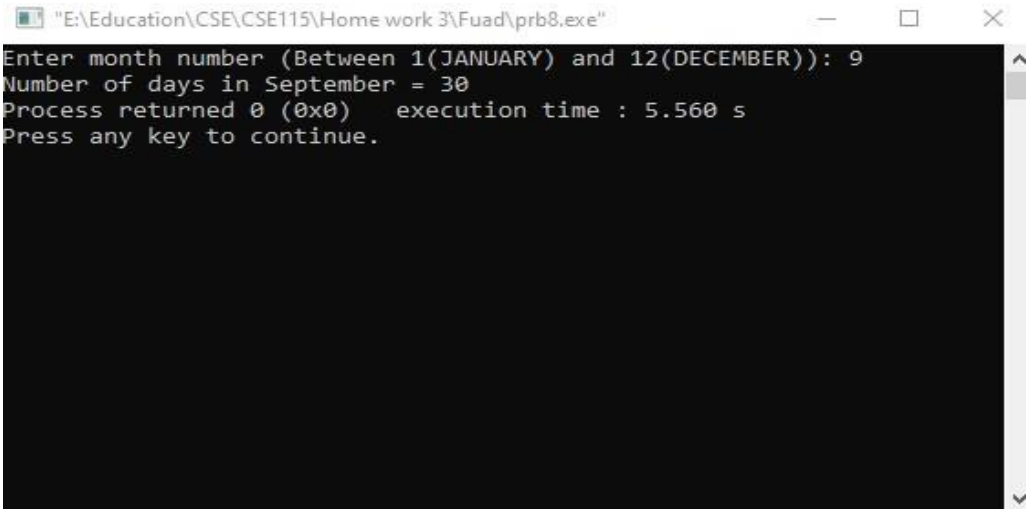
Task 8

```
#include <stdio.h>
int main() {
char month_number;
printf("Enter month number (Between 1(JANUARY) and 12(DECEMBER)): ");
scanf("%c", &month_number);

switch (month_number)
{
   case '1':
     printf("Number of days in January = 31");
     break;

    case '2':
     printf("Number of days in February = 28");
     break;

   case '3':
     printf("Number of days in March= 31");
     break;

   case '4':
     printf("Number of days in April = 30");
     break;

   case '5':
     printf("Number of days in May = 31");
     break;
```

```
 case '6':
   printf("Number of days in June = 30");
   break;

 case '7':
   printf("Number of days in July = 31");
   break;

 case '8':
   printf("Number of days in August = 31");
   break;

 case '9':
   printf("Number of days in September = 30");
   break;

 case '10':
   printf("Number of days in October = 31");
   break;

 case '11':
   printf("Number of days in November = 30");
   break;

case '12':
   printf("Number of days in December = 31");
   break;
 // operator doesn't match any case constant
 default:
```

```
    printf("Error! NO such Month Exists");
}


return 0;
}
```

Output:



Task 9

```
#include <stdio.h>
int main()
{
int number;
printf("Enter the number: ");
scanf("%d", &number);
if(number%2==0)
   printf("Number is Even");
else
   printf("Number is Odd");
return 0;
}
```

Output