Programs executed in Lab Session 1

Date: 18 May 2021

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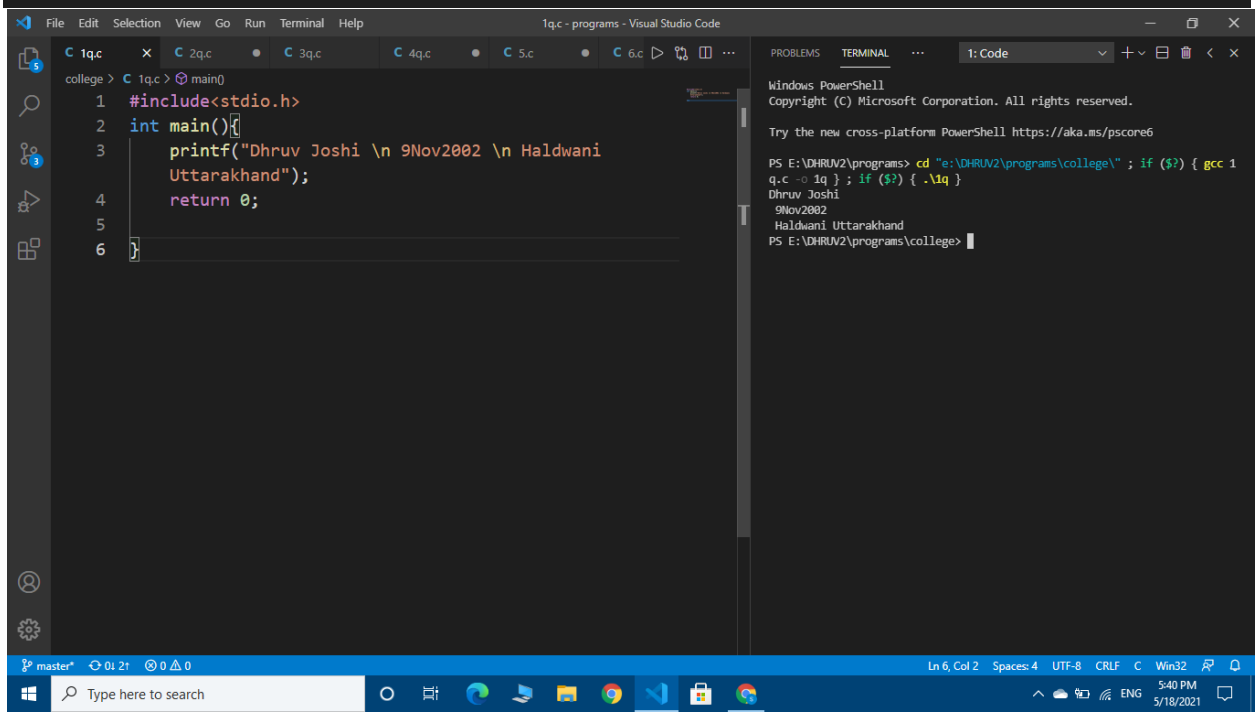
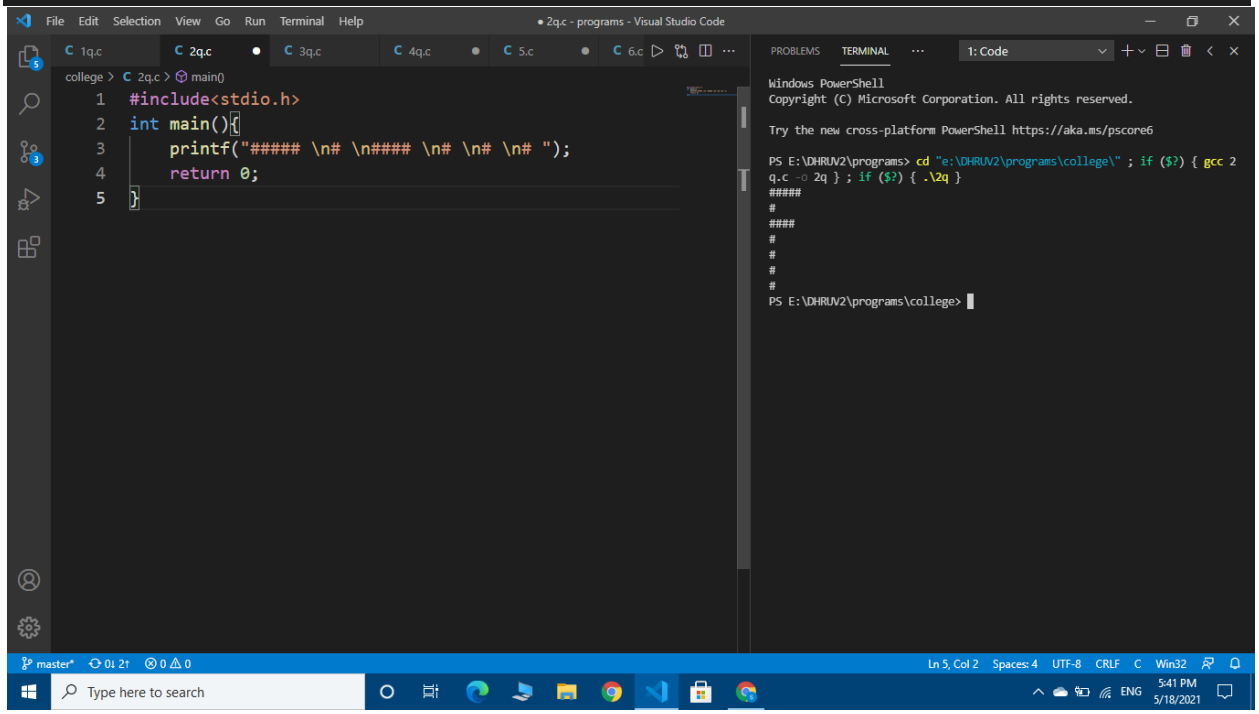
1. Program to print your name, date of birth and address.

```c
#include<stdio.h>
int main(){
    printf("Dhruv Joshi \n 9Nov2002 \n Haldwani
Uttarakhand");
    return 0;
}
```



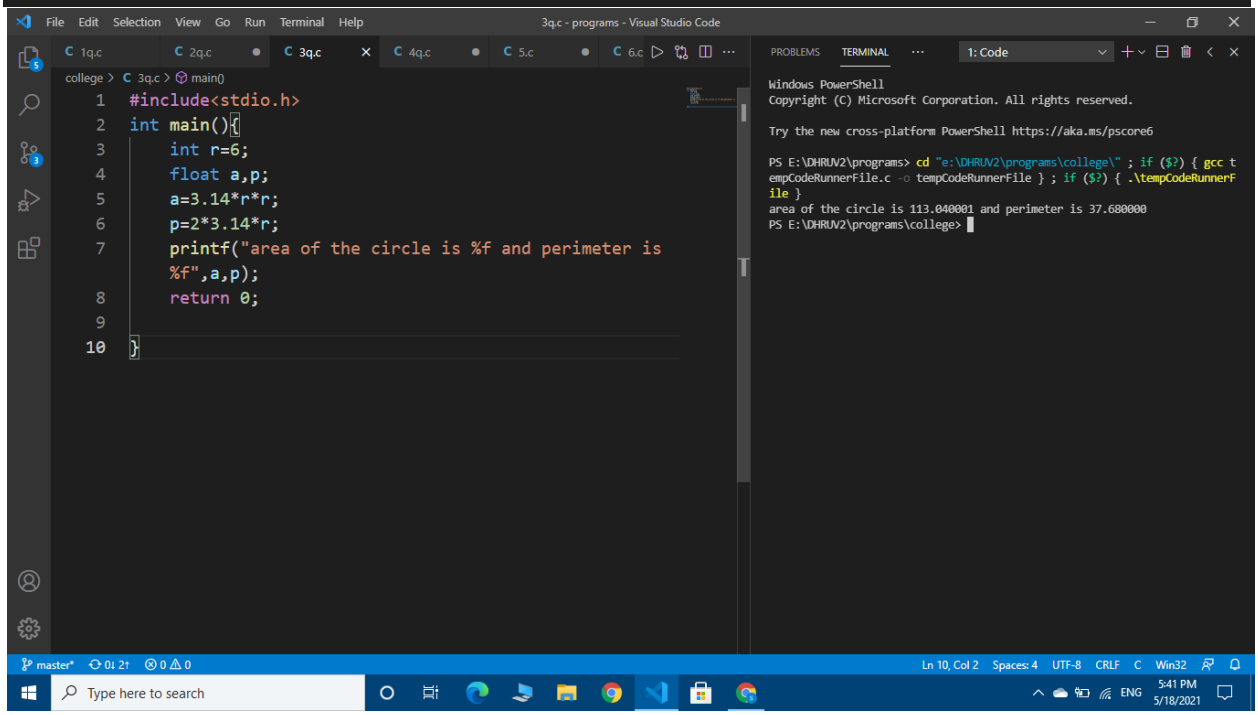
2. Program to print a block F using hash (#), where the F has a height of six characters and width of five and four characters.

```c
#include<stdio.h>
int main(){
    printf("##### \n# \n#### \n# \n# \n# ");
    return 0;
}
```



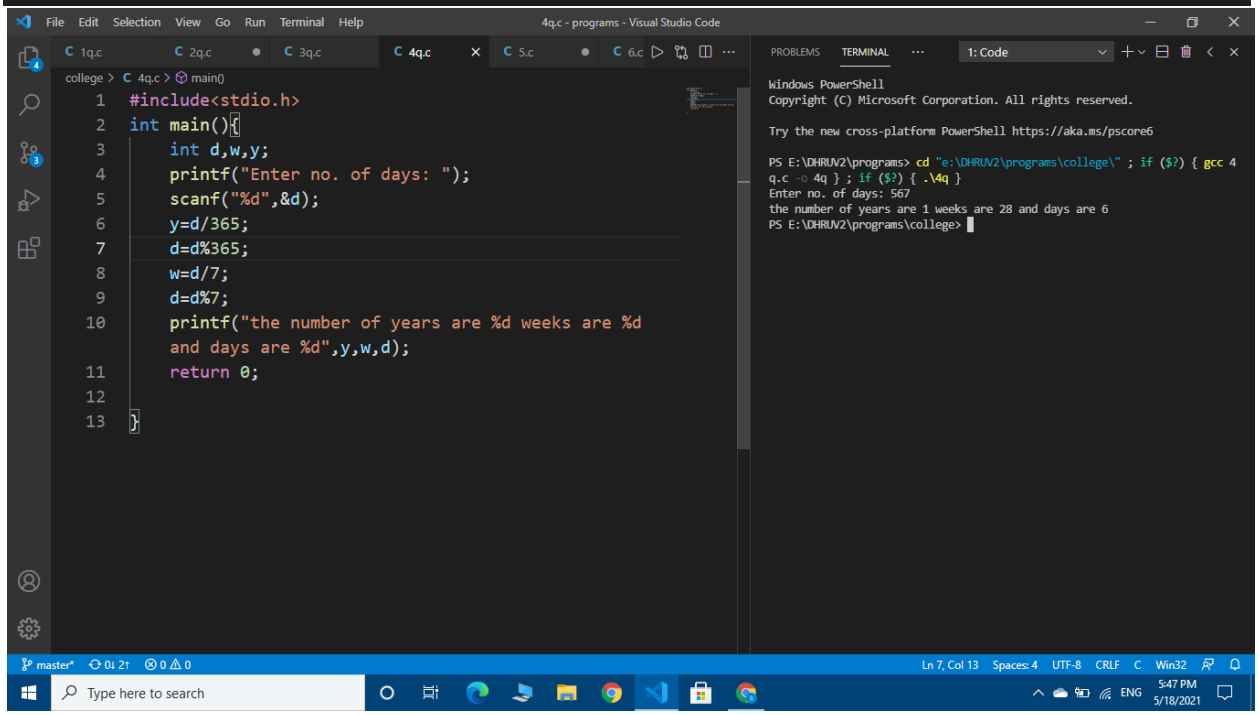
3. Program to compute the perimeter and area of a circle with a radius of 6 inches.

```c
#include<stdio.h>
int main(){
    int r=6;
    float a,p;
    a=3.14*r*r;
    p=2*3.14*r;
    printf("area of the circle is %f and perimeter is %f",a,p);
    return 0;

}
```



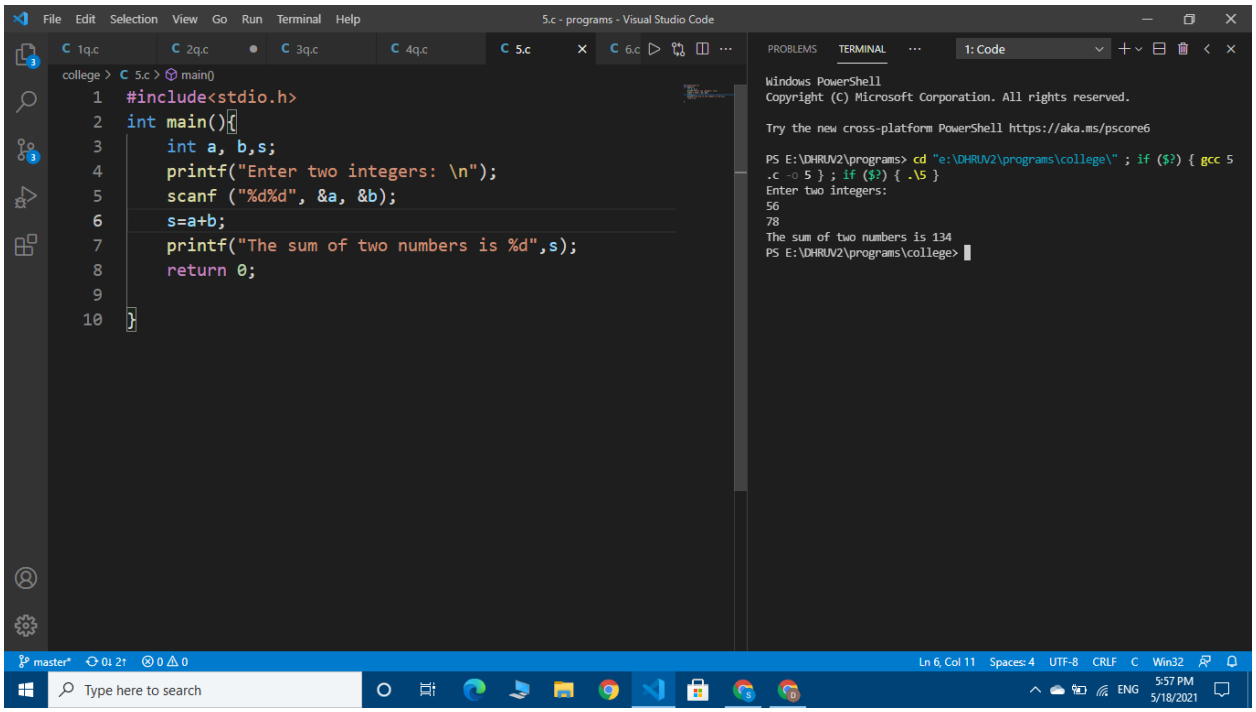
4. Program to convert specified days into years, weeks and days.

```c
#include<stdio.h>
int main(){
    int d,w,y;
    printf("Enter no. of days: ");
    scanf("%d",&d);
    y=d/365;
    d=d%365;
    w=d/7;
    d=d%7;
    printf("the number of years are %d weeks are %d and days are %d",y,w,d);
    return 0;

}
```



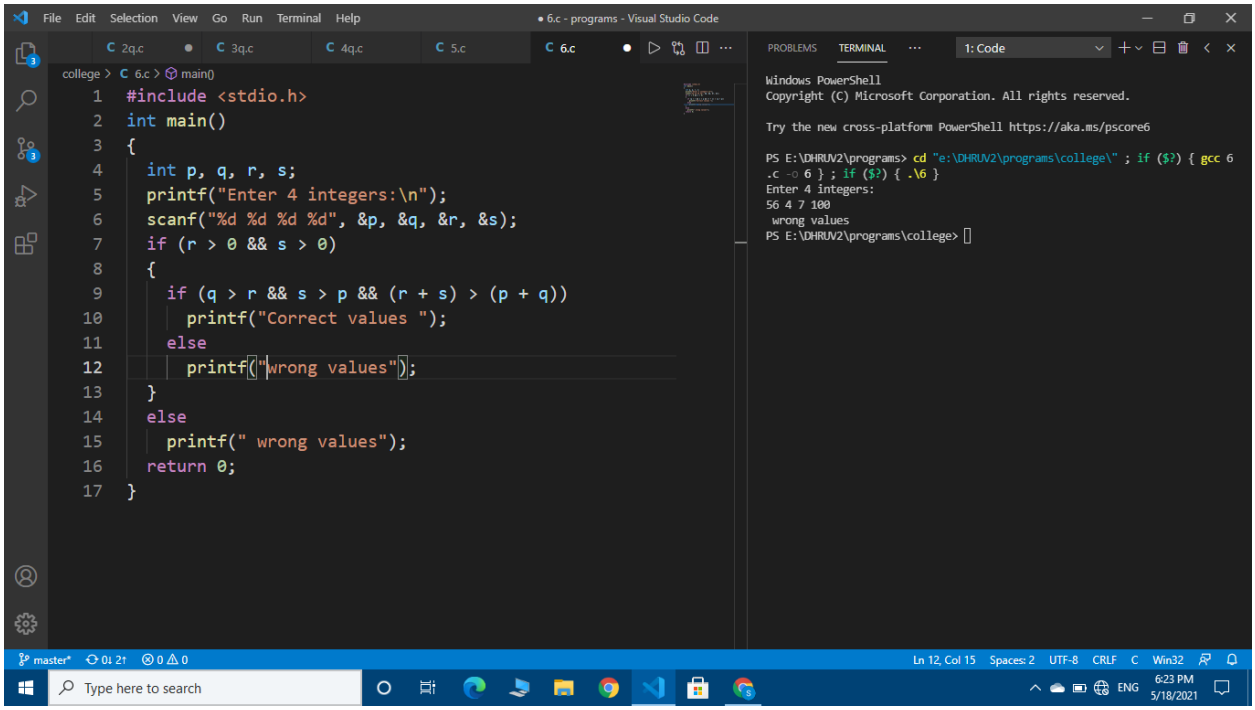
5. Program that accepts two integers from the user and calculates the sum of the two integers.

```c
#include<stdio.h>
int main(){
    int a, b,s;
    printf("Enter two integers: \n");
    scanf ("%d%d", &a, &b);
    s=a+b;
    printf("The sum of two numbers is %d",s);
    return 0;

}
```



6. Program that accepts 4 integers p, q, r, s from the user where r and s are positive and p is even. If q is greater than r and s is greater than p and if the sum of r and s is greater than the sum of p and q print “Correct values”, otherwise print “Wrong values”.

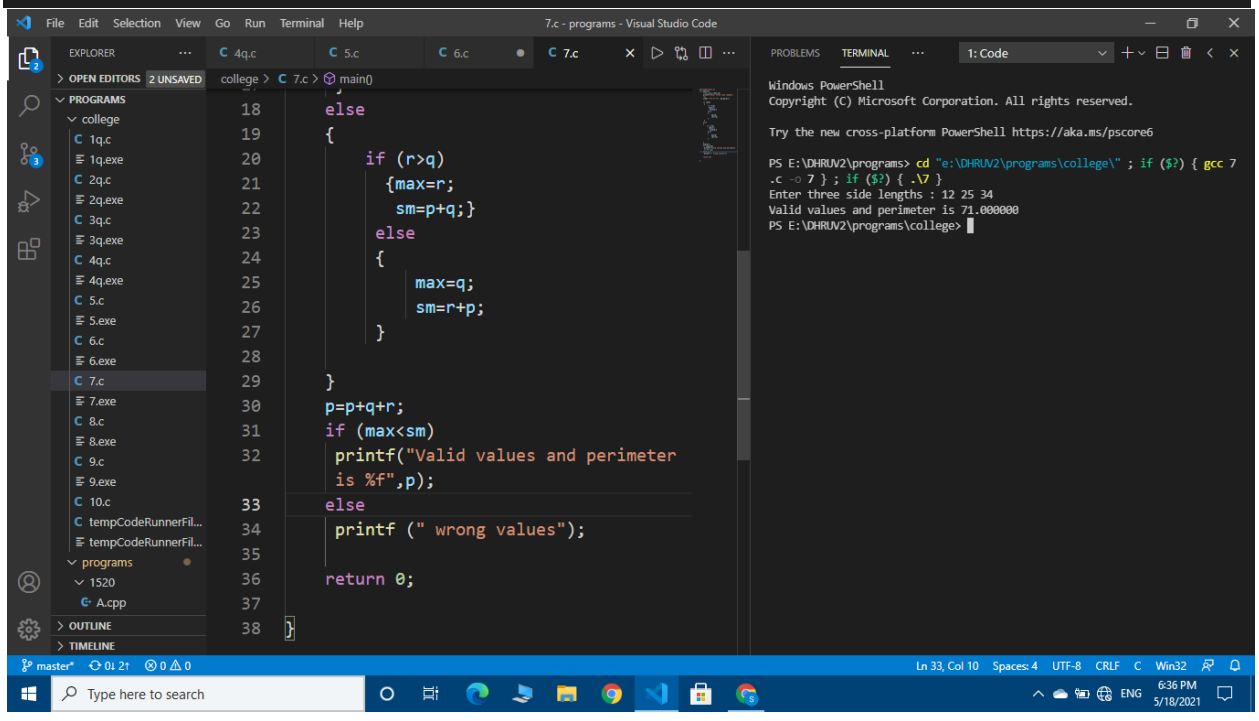
```
#include<stdio.h>
int main(){
    int p,q,r,s;
    scanf ("%d %d %d %d", p,q,r,s);
    if (r>0 && s>0)
    {
    if (q>r && s>p && (r+s)>(p+q))
     printf("Correct values ");
    else
     printf (" wrong values");
         }
    else
      printf (" wrong values");
    return 0;

}
```


File Edit Selection View Go Run Terminal Help
• 6.c - programs - Visual Studio Code
2q.c
3q.c
4q.c
5.c
6.c
college > 6.c > main()
#include <stdio.h>
int main()
{
int p, q, r, s;
printf("Enter 4 integers:\n");
scanf("%d %d %d %d", &p, &q, &r, &s);
if (r > 0 && s > 0)
{
if (q > r && s > p && (r + s) > (p + q))
printf("Correct values ");
else
printf("wrong values");
}
else
printf(" wrong values");
return 0;
}
PROBLEMS
TERMINAL
1: Code
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS E:\DHRUV2\programs> cd "e:\DHRUV2\programs\college\" ; if ($?) { gcc 6
.c -o 6 } ; if ($?) { .\6 }
Enter 4 integers:
56 4 7 100
wrong values
PS E:\DHRUV2\programs\college>
master*
Ln 12, Col 15
Spaces: 2
UTF-8
CRLF
C
Win32
Type here to search
ENG
6:23 PM
5/18/2021

7. Program that reads three floating values and checks if it is possible to make a triangle with them. Also calculate the perimeter of the triangle if the said values are valid.

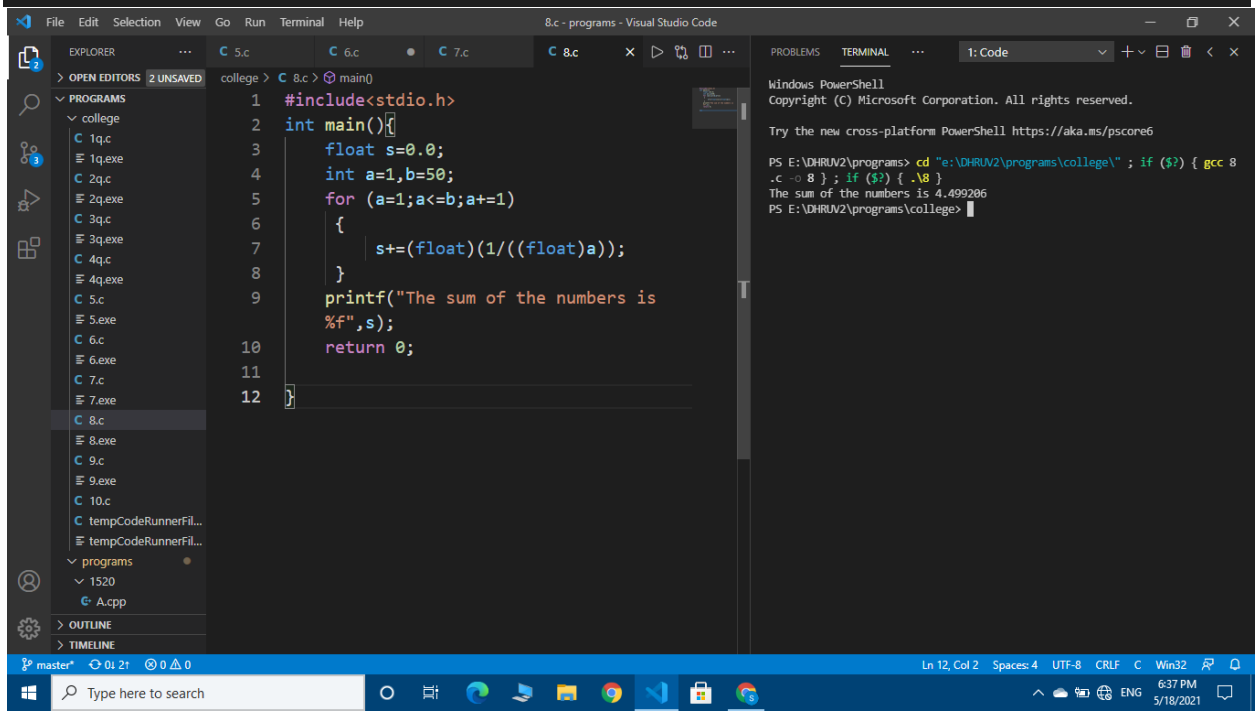
```
#include<stdio.h>
int main(){
    float p,q,r,max,sm;
    printf("Enter three side lengths : ");
    scanf ("%f %f %f", &p,&q,&r);

    if (p>q)
     {
         if (r>p)
          {max=r;
           sm=p+q;}
         else
         {
             max=p;
             sm=r+q;
         }
     }
    else
    {
        if (r>q)
          {max=r;
           sm=p+q;}
         else
         {
             max=q;
```

```
                sm=r+p;
            }


    }
    p=p+q+r;
    if (max<sm)
     printf("Valid values and perimeter is %f",p);
    else
     printf (" wrong values");
    return 0;
}
```



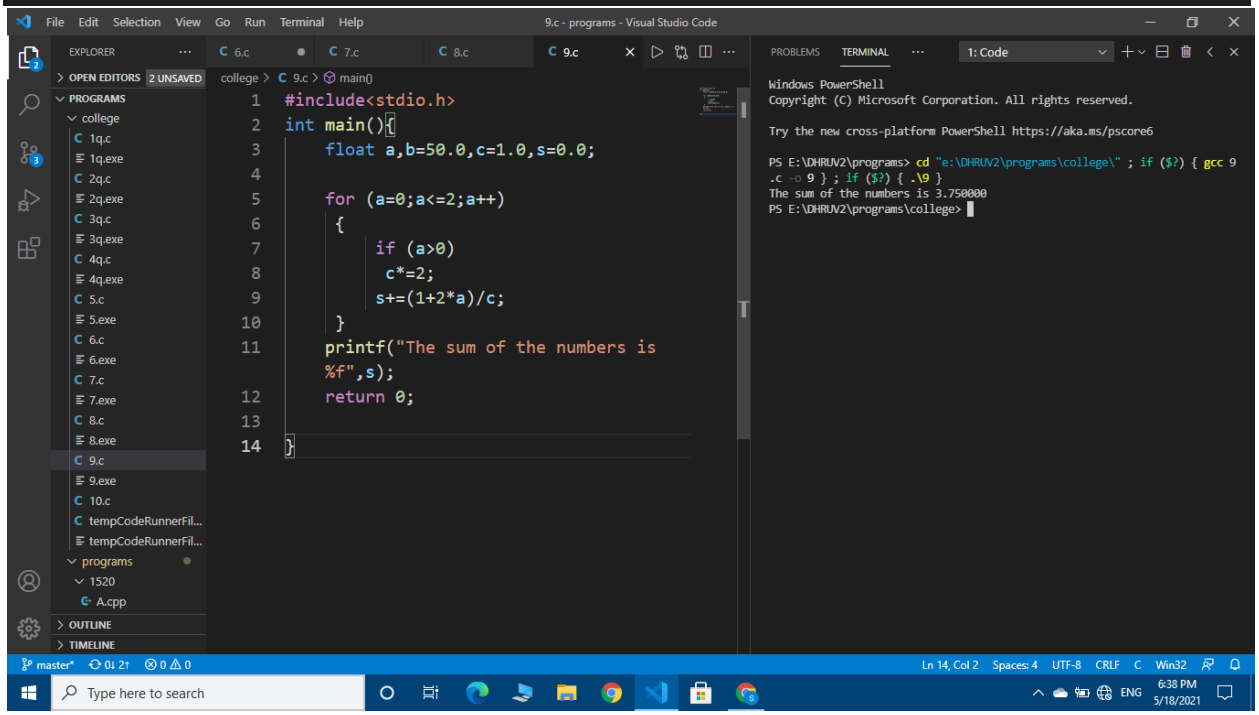
8. Program to calculate the value of S where S = 1 + 1/2 + 1/3 + … + 1/50.

```c
#include<stdio.h>
int main(){
    float s=0.0;
    int a=1,b=50;
    for (a=1;a<=b;a+=1)
     {
         s+=(float)(1/((float)a));
     }
    printf("The sum of the numbers is %f",s);
    return 0;

}
```



9. Program to calculate the value of S where S = 1 + 3/2 + 5/4 + 7/8 using for loop.

```c
#include<stdio.h>
int main(){
    float a,b=50.0,c=1.0,s=0.0;

    for (a=0;a<=2;a++)
     {
         if (a>0)
          c*=2;
         s+=(1+2*a)/c;
     }
    printf("The sum of the numbers is %f",s);
    return 0;

}
```



10. Program that accepts 4 real numbers from the keyboard and prints out the difference of the maximum and minimum values of these four numbers.

```c
#include <stdio.h>
int main()
{
  printf("Enter four numbers :\n");
  float p, q, r, s, mx, mn, v;
  scanf("%f%f%f%f", &p, &q, &r, &s);
  if (p > q)
  {
    mx = p;
    mn = q;
  }
  else
  {
    mx = q;
    mn = p;
  }
  if (r > mx)
  {
    mx = r;
  }
  if (r < mn)
  {
    mn = r;
  }
  if (s > mx)
```

```
  {
    mx = s;
  }
  if (s < mn)
  {
    mn = s;
  }
  v=mx-mn;
  printf("The value is %f", v);
  return 0;
}
```