C PROGRAMMING ASSIGNMENT: 8

DATE: 12.11.21

SUBMITTED BY: -

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BRANCH: CSE

SECTION: B22

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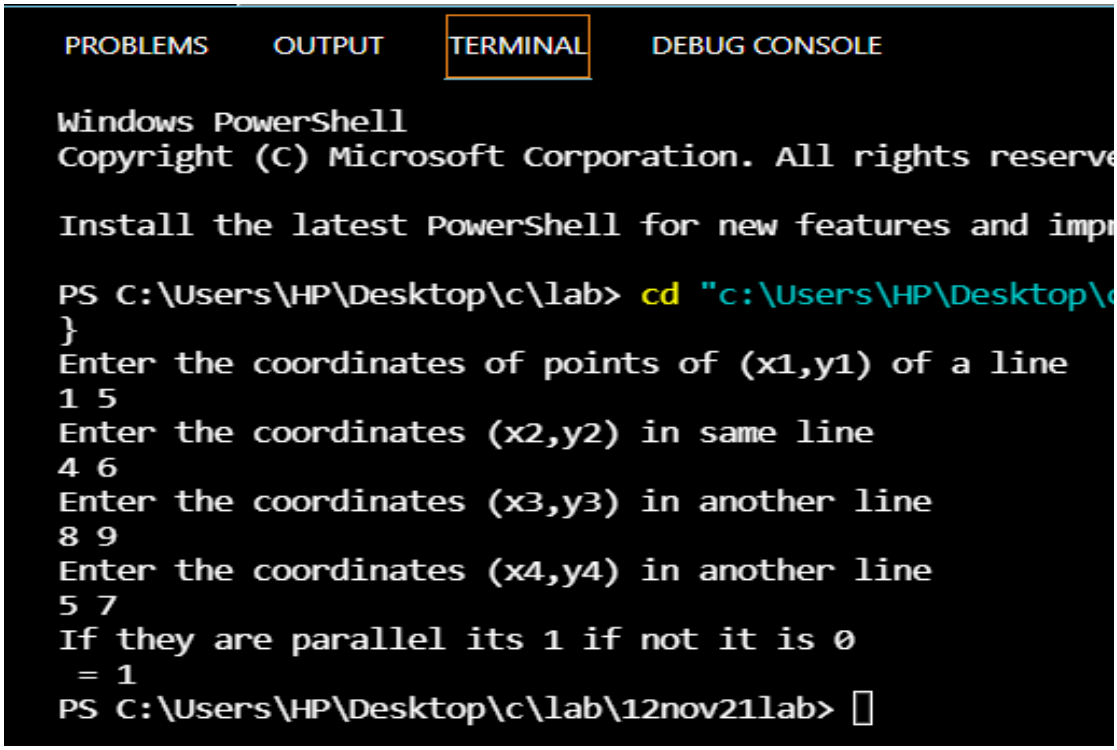
Program 1: wap to disp 1 if 2 lines in 2-d are parallel to eachother else any other int value

Code:

```
    return 0;
}
#include<stdio.h>
int main(int argc, char const *argv[])
{
    int x1,x2,x3,x4,y1,y2,y3,y4,m1,m2,t;
    printf("Enter the coordinates of points of (x1,y1) of a line \n");
    scanf("%d %d",&x1,&y1);
    printf("Enter the coordinates (x2,y2) in same line\n");
    scanf("%d %d",&x2,&y2);
    printf("Enter the coordinates (x3,y3) in another line\n");
    scanf("%d %d",&x3,&y3);
    printf("Enter the coordinates (x4,y4) in another line\n");
    scanf("%d %d",&x4,&y4);
    m1=(y2-y1)/(x2-x1);
    m2=(y4-y3)/(x4-x3);
    t=(m1==m2);
    printf("If they are parallel its 1 if not it is 0 \n = %d",t);
}
```

Output:


PROBLEMS
OUTPUT
TERMINAL
DEBUG CONSOLE
Windows PowerShell
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PS C:\Users\HP\Desktop\c\lab> cd "c:\Users\HP\Desktop\c
}
Enter the coordinates of points of (x1,y1) of a line
1 5
Enter the coordinates (x2,y2) in same line
4 6
Enter the coordinates (x3,y3) in another line
8 9
Enter the coordinates (x4,y4) in another line
5 7
If they are parallel its 1 if not it is 0
= 1
PS C:\Users\HP\Desktop\c\lab\12nov21lab>

Program 2: wap to check for right angled triangle

Code:

```c
#include<stdio.h>
#include<math.h>
int main(int argc, char const *argv[])
{
    int p,b,h,t;
    printf("Enter perpendicular side \n");
    scanf("%d",&p);
    printf("Enter hypotenuse side\n");
    scanf("%d",&h);
    printf("Enter base side\n");
    scanf("%d2",&b);
    t=(pow(p,2)+pow(b,2)==pow(h,2));
    printf("If it qualifies for a right angled triangle output is 1 if not
it is 0 \n = %d",t);
    return 0;
}
```

Output:

```
PROBLEMS   OUTPUT   TERMINAL   DEBUG CONSOLE

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PS C:\Users\HP\Desktop\c\lab> cd "c:\Users\HP\Desktop\c\lab\12nov21lab\"
Enter perpendicular side
4
Enter hypotenuse side
8
Enter base side
6
If it qualifies for a right angled triangle output is 1 if not it is 0
 = 0
PS C:\Users\HP\Desktop\c\lab\12nov21lab>
```
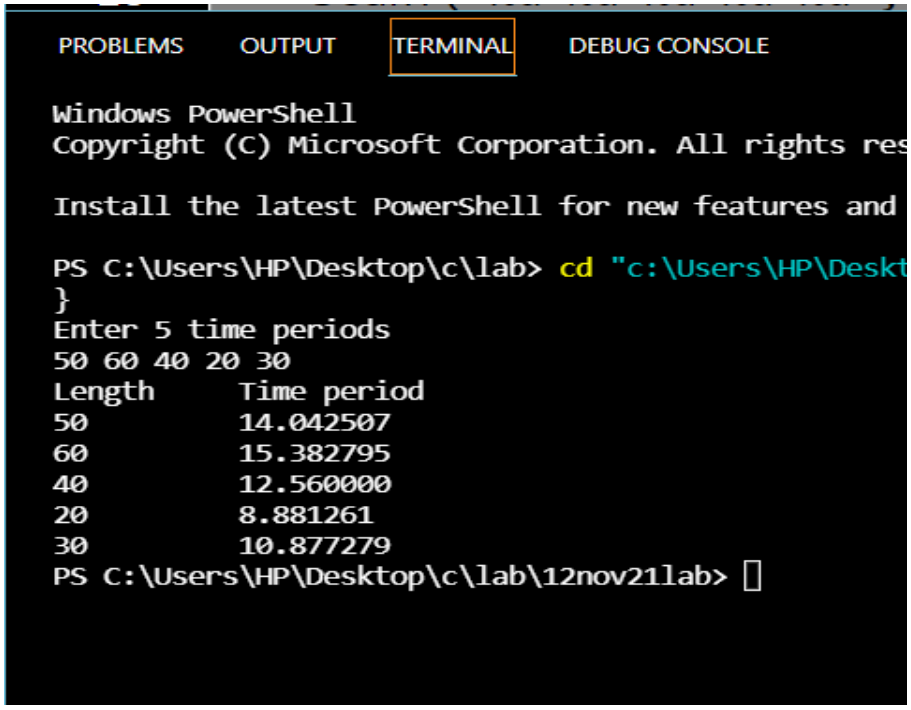

Program 3: write a program to disp time period of a simple pendulum?

Code:

```
#include<stdio.h>
#include<math.h>
#define pi 3.14
#define g 10
int main(int argc, char const *argv[])
{
    int l1,l2,l3,l4,l5; float t1,t2,t3,t4,t5;
    printf("Enter 5 time periods \n");
    scanf("%d %d %d %d %d",&l1,&l2,&l3,&l4,&l5);
    t1=2*pi*sqrt(l1/g);
    t2=2*pi*sqrt(l2/g);
    t3=2*pi*sqrt(l3/g);
    t4=2*pi*sqrt(l4/g);
    t5=2*pi*sqrt(l5/g);
    printf("Length     Time period\n");
    printf("%d         %f\n",l1,t1);
    printf("%d         %f\n",l2,t2);
    printf("%d         %f\n",l3,t3);
    printf("%d         %f\n",l4,t4);
    printf("%d         %f\n",l5,t5);
    return 0;
}
```

Output:


PROBLEMS
OUTPUT
TERMINAL
DEBUG CONSOLE
Windows PowerShell
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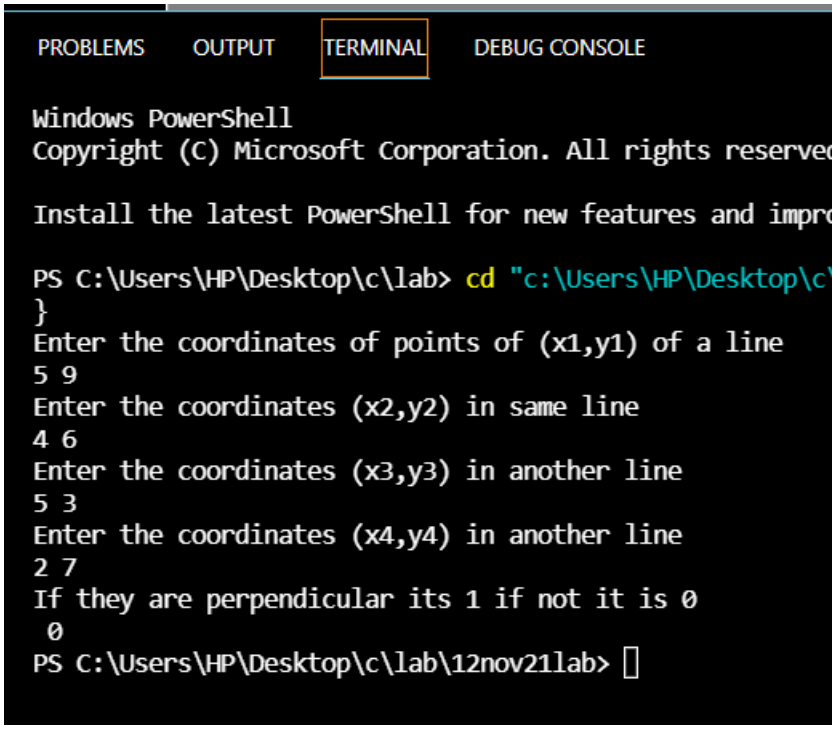
Install the latest PowerShell for new features and
PS C:\Users\HP\Desktop\c\lab> cd "c:\Users\HP\Deskt
}
Enter 5 time periods
50 60 40 20 30
Length Time period
50 14.042507
60 15.382795
40 12.560000
20 8.881261
30 10.877279
PS C:\Users\HP\Desktop\c\lab\12nov21lab>

Program 4: //wap to disp 1 if 2 lines in 2-d are perpendicular to eachother else any other int value

Code:

```
#include<stdio.h>
int main(int argc, char const *argv[])
{
    int x1,x2,x3,x4,y1,y2,y3,y4,m1,m2,t;
    printf("Enter the coordinates of points of (x1,y1) of a line \n");
    scanf("%d %d",&x1,&y1);
    printf("Enter the coordinates (x2,y2) in same line\n");
    scanf("%d %d",&x2,&y2);
    printf("Enter the coordinates (x3,y3) in another line\n");
    scanf("%d %d",&x3,&y3);
    printf("Enter the coordinates (x4,y4) in another line\n");
    scanf("%d %d",&x4,&y4);
    m1=(y2-y1)/(x2-x1);
    m2=(y4-y3)/(x4-x3);
    t=(m2*m1*(-1)==1);
    printf("If they are perpendicular its 1 if not it is 0 \n %d",t);
    return 0;
}
```

Output:


PROBLEMS
OUTPUT
TERMINAL
DEBUG CONSOLE
Windows PowerShell
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PS C:\Users\HP\Desktop\c\lab> cd "c:\Users\HP\Desktop\c
}
Enter the coordinates of points of (x1,y1) of a line
5 9
Enter the coordinates (x2,y2) in same line
4 6
Enter the coordinates (x3,y3) in another line
5 3
Enter the coordinates (x4,y4) in another line
2 7
If they are perpendicular its 1 if not it is 0
0
PS C:\Users\HP\Desktop\c\lab\12nov21lab>