

3. WAP to check if three points (x_1, y_1) , (x_2, y_2) and (x_3, y_3) are collinear or not.

```
#include <stdio.h>
int main ()
{
    int x1, y1, x2, y2, x3, y3;
    printf ("Enter the coordinates for point 1");
    scanf ("%d %d", &x1, &y1);
    printf ("Enter the coordinates for point 2");
    scanf ("%d %d", &x2, &y2);
    printf ("Enter the coordinates for point 3");
    scanf ("%d %d", &x3, &y3);
    int area = x1 * (y2 - y3) + x2 * (y3 - y1) + x3 * (y1 - y2);
    if (area == 0)
    {
        printf ("Points are collinear");
    }
    else
    {
        printf ("Points are NOT collinear");
    }
    return 0;
}
```

Go Run ... ← →

Absproj

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C exp1nl.c

C exp1display.c

C exp3triangle.c

C exp1name.c

C exp3bmi.c

exp3bmi.exe

C exp3collinear.c X

C exp3collinear.c > main()

```
1
2 #include<stdio.h>
3 int main ()
4 {
5     int x1,y1,x2,y2,x3,y3;
6     printf("Enter the coordinates for point 1 : ");
7     scanf("%d %d",&x1,&y1);
8     printf("\nEnter the coordinates for point 2 : ");
9     scanf("%d %d",&x2,&y2);
10    printf("\nEnter the coordinates for point 3 : ");
11    scanf("%d %d",&x3,&y3);
12    int area = x1 * (y2 - y3) + x2 * (y3 - y1) + x3 * (y1 - y2);
13    if (area==0)
14    {
15        printf("Points are collinear");
16    }
17    else
18    {
19        printf("Points are NOT collinear");
20    }
21    return 0;
22 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE PORTS

```
xp3collinear } ; if ($?) { .\exp3collinear }
Enter the coordinates for point 1 : 4 5
```

```
Enter the coordinates for point 2 : 6 7
```

```
Enter the coordinates for point 3 : 9 4
```

```
Points are NOT collinear
```

```
PS C:\Users\abiga\OneDrive\Desktop\Absproj>
```