

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;
```

```
}
```

C exp1nl.c

C exp1display.c

C exp3triangle.c

C exp1name.c

C exp3bmi.c

≡ exp3bmi.exe

C exp3collinear.c X



C exp3collinear.c &gt; 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> |
```