3. WAP to check if three points $(x1, y1)$, $(x2, y2)$ and $(x3, y3)$ 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

exp1nl.c | exp1display.c | exp3triangle.c | exp1name.c | exp3bmi.c | exp3bmi.exe | exp3collinear.c

exp3collinear.c > main()

```c

#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("\nEnter the coordinates for point 2 : ");
scanf("%d %d",&x2,&y2);
printf("\nEnter 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;
}
```

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>
```