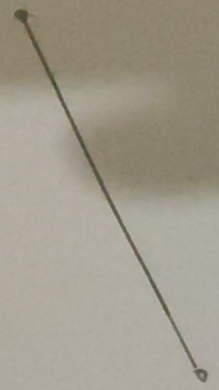
Enter the translation

0 0

50 50



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Q) WAP Translation with the help of line without using Algorithm?

```
#include <stdio.h>
#include <conio.h>
#include <graphics.h>
void main()
    int x1, y1, x2, y2;
    int gd= DETECT, gm;
    initgraph (&gd, &gm, "C:\\tc\\bgi");
    printf("Enter x1, y1:\n");
    scanf("%d%d", &x1, &y1);
    printf("Enter x2, y2:\n");
    scanf("%d%d", &x2, &y2);
    line (x1, y1, x2, y2);
    printf("Enter the translation");
    getch();
```

3

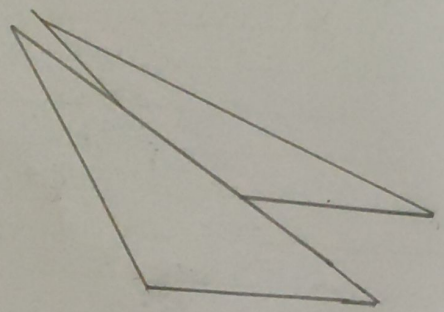
Enter Vertex of Triangle:

50
50
150
100
200
100

Enter the angle to rotate:

5

New Rotation Triangle:



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8) WAP a program to Rotate a Triangle.

```
#include <stdio.h>
#include <conio.h>
#include <graphics.h>
#include <math.h>

void main(){
    int x1,y1,x2,y2,x3,y3;
    float theta;
    int gd = DETECT, gm;
    initgraph(&gd,&gm,"C:\\tc\\bgi");
    printf("Enter vertex of triangle:\n");
    scanf("%d%d",&x1,&y1);
    scanf("%d%d",&x2,&y2);
    scanf("%d%d",&x3,&y3);
    line(x1,y1,x2,y2);
    line(x2,y2,x3,y3);
    line(x3,y3,x1,y1);
    printf("Enter the angle to rotate:\n");
    scanf("%f",&theta);
    theta=(theta*22)/(180*7);
    x1=x1*cos(theta)-y1*sin(theta);
    y1=x1*sin(theta)+y1*cos(theta);
    x2=x2*cos(theta)-y2*sin(theta);
    y2=x2*sin(theta)+y2*cos(theta);
```

```
x3 = 3*cos(theta) - y3*sin(theta);
y3 = x3*sin(theta) + y3*cos(theta);
printf("New rotation triangle:\n");
line(x1,y1,x2,y2);
line(x2,y2,x3,y3);
line(x3,y3,x1,y1);
getch();
}
```

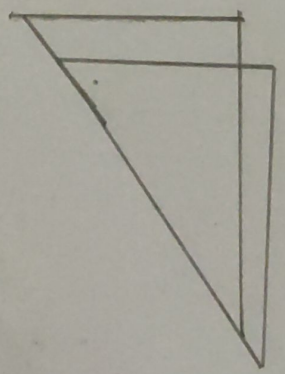
Enter vertex of Triangle:

50
100
150
200
158
100

Enter the translation factor:

10
10

New translated Line:



8) WAP for Translated Triangle.

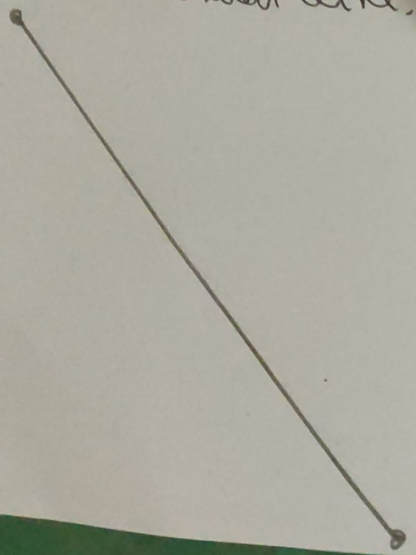
```
#include<stdio.h>
#include<conio.h>
#include<graphics.h>

void main(){
        int x1,y1,x2,y2,x3,y3,tx,ty;
        int gd=DETECT,gm;
        initgraph(&gd,&gm,"C:\\tc\\bgi");
        printf("Enter vertex of triangle:\n");
        scanf("%d%d",&x1,&y1);
        scanf("%d%d",&x2,&y2);
        scanf("%d%d",&x3,&y3);
        line(x1,y1,x2,y2);
        line(x2,y2,x3,y3);
        line(x3,y3,x1,y1);
printf("Enter the translation factor:\n");
scanf("%d%d",&tx,&ty);
x1=x1+tx;
x2=x2+tx;
x3=x3+tx;
y1=y1+ty;
y2=y2+ty;
y3=y3+ty;
printf("New translated line:\n");
```

```
line(x1, y1, x2, y2);
line(x2, y2, x3, y3);
line(x3, y3, x1, y1);
getch();
}
```

Enter x1, y1;
10
10
Enter x2, y2;
100
100

Enter the translation factor:
150
150

New translated line:



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Q) WAP for Translated Line.

```
#include <stdio.h>
#include <conio.h>
#include <graphics.h>

void main(){
    int x1, y1, x2, y2, tx, ty;
    int gd=DETECT, gm;
    initgraph(&gd, &gm, "C:\\tc\\bgi");
    printf("Enter x1, y1:\n");
    scanf("%d%d", &x1, &y1);
    printf("Enter x2, y2:\n");
    scanf("%d%d", &x2, &y2);
    line(x1, y1, x2, y2);
    printf("Enter the translation factor:\n");
    scanf("%d%d", &tx, &ty);
    x1 = x1 + tx;
    x2 = x2 + tx;
    y1 = y1 + ty;
    y2 = y2 + ty;
    printf("New translated line:\n");
    line(x1, y1, x2, y2);
    line(x1, y1, x2, y2);
    getch();
}
```