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Dt. _____
Pg. _____

```
#include<graphics.h>
#include<stdlib.h>
#include<stdio.h>
#include<conio.h>
void main()
{ int gd,gm;
  int gd = DETECT;
int x1, x2, x3, y1, y2, y3, nx1, nx2, nx3, ny1, ny2, ny3, c;
int sx, sy, xt, yt, r;
 float t;

initgraph(&gd,&gm,"c:\tc\bg:");
printf("Program for basic transaction");
printf("Enter points of triangle");
setcolor(1)

scanf("%d %d %d %d %d %d", &x1,&y1,&x2,&y2,&x3,&y3);
   Line(x1,y1,x2,y2);
   Line(x2,y2,x3,y3);
   line(x3,y3,x1,y1);
   getch();
   printf("Translation \n 2 Rotation \n scaling \n exit");

   printf("Enter choice");
   scanf("%d",&c);
      switch(c);
   {
      Case 1:
         printf("Enter the translation factor");
         scanf("%d %d",&xt,&yt);
            nx1 = x1 + xt;
```

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```
nx1=x1+xt;
ny1=y1+yt;
nx2=x2+xt;
ny2=y2+yt;
nx3=x3+xt;
ny3=y3+yt;
line(nx1, ny1, nx2, ny2);
line(nx2, ny2, nx3, ny3);
line(nx3, ny3, nx1, ny1);
getch();
```

case 2

```
printf("Enter the angle of rotation");
scanf("%d",&r);
t=3.14*r/180;
nx1=abs(x1*cos(t)-y1*sin(t));
ny1=abs(x1*sin(t)+y1*cos(t));
nx2=abs(x2*cos(t)-y2*sin(t));
ny2=abs(x2*sin(t)+y2*cos(t));
nx3=abs(x3*cos(t)-y3*sin(t));
ny3=abs(x3*sin(t)+y3*cos(t));
line(nx1, ny1, nx2, ny2);
line(nx2, ny2, nx3, ny3);
line(nx3, ny3, nx1, ny1);
getch();
```

case 3:

```
printf("Enter the scaling factor");
scanf("%d%d", &sx, &sy);
nx1=x1*sx;
ny1=y1*sy;
nx2=x2*sx;
ny2=y2*sy;
nx3=x3*sx;
```

```
nxy3 = y3 * sy;
line (nx1, ny1, nx2, ny2);
line (nx2, ny2, nx3, ny3);
line (nx3, ny3, nx1, ny1);
getch();

case 4:
    break;

default
    printf ("enter the correct choice");
    }
    closegraph();
}
```