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Que 2

Source Code:

```
#include <graphics.h>
#include <stdlib.h>
#include <stdio.h>
#include <conio.h>
#include <math.h>
    void main()
    {
      int gm;
      int gd= DETECT;
       int
x1, x2, x3, y1, y2, x3, nx1, nx2, nx3, ny2, ny2, ny3, c;
      int sx, sy, sx1, yt, r;
        float t;
      initgraph (&gd, &gm, "C:\\tc\\bgi");
    printf("\t Program for basic transaction");
    printf("\n\t Enter the point of triangle");
      setcolor(1);
scanf("%d %d %d %d %d %d", &x1, &y1, &x2, &y2, &x3, &y3);
        line (x1, y1, x2, x2);
        line (x2, y2, x3, y3);
        line (x3, y3, x1, y1);
          getch();
          printf("\n 1. transaction\n 2. Rotation\n 3. Scaling\n
                                                    .exit");
            printf("Enter your choice");
              scanf("%d", &c);
              switch (c)
              {
```

Case 1:

```
printf("\n Enter the translation factor:");
scanf("%d %d", &xt, &yt);
nx1 = x1 + xt;
ny1 = y1 + yt;
nx2 = x2 + xt;
ny2 = y2 + yt;
ny 2 = y2 + yt;
ny3 = x3 + xt;
ny3 = y3 + yt;
line (nx1, ny1, nx2, ny2);
line (nx2, ny2, nx3, ny3);
line (nx3, ny3, nx1, ny1);
getch();
```

Case 2:

```
printf("\n 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));
nx3 = abs (x3 * Sin (t) + y3 * Cos(t));
line (nx1, ny2, nx2, ny2);
line (nx2, ny2, nx3, ny3);
line (nx3, ny2, nx1, ny2);
getch();
```

```
Case 3:
Printf("\n Enter the Scaling factor:");
    Scanf("%d %d", &sx, &sy);
      nx1 = x1 * sx;
      ny1 = y2 * sy;
      nx2 = x2 * sx;
      ny2 = y2 * sy;
      nx3 = x3 * sx;
      ny3 = 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();
      }
```