

```
// exemplu animatie:  
// rotatia unui patrat in jurul centrului ferestrei de afisare
```

```
// implementare folosind clasa Transform2D
```

```
package grafica;  
  
import java.applet.*;  
import java.awt.*;  
  
import java.awt.geom.*;  
  
public class Rotatie extends Applet  
{  
    Point2D.Float C;  
    Point2D.Float[] patrat;  
    float cosu, sinu, du;  
    int nrRotatii = 10, latura = 50, raza = 70;  
  
    public String getAppletInfo()  
    {  
        return "Rotatie\n" + "\n" + "Roteste un patrat de latura Latura in jurul  
centrului ecranului,\n" + "la o distanta Raza\n" + "";  
    }  
  
    public void init()  
    {  
        super.init();  
  
        du = (float) (2 * Math.PI / nrRotatii);  
        cosu = (float) Math.cos(du);  
        sinu = (float) Math.sin(du);  
    }  
  
    public static void sleep(int ms)  
    {  
        try  
        {  
            Thread.currentThread().sleep(ms);  
        }  
        catch (InterruptedException e)  
        {  
        }  
    }  
}
```

```
public void desen(Graphics g)
```

```
{  
    g.drawLine((int) patrat[0].x, (int) patrat[0].y, (int) patrat[1].x, (int) patrat[1].y);  
    g.drawLine((int) patrat[1].x, (int) patrat[1].y, (int) patrat[2].x, (int) patrat[2].y);  
    g.drawLine((int) patrat[2].x, (int) patrat[2].y, (int) patrat[3].x, (int) patrat[3].y);  
    g.drawLine((int) patrat[3].x, (int) patrat[3].y, (int) patrat[0].x, (int) patrat[0].y);  
}
```

```
public void paint(Graphics g)
```

```
{  
    super.paint(g);
```

```
    C = new Point2D.Float((float)getSize().width / 2.0f, getSize().height / 2.0f);
```

```
    patrat = new Point2D.Float[4];
```

```
    patrat[0] = new Point2D.Float(C.x + raza - latura / 2, C.y - latura / 2);
```

```
    patrat[1] = new Point2D.Float(patrat[0].x + latura, patrat[0].y);
```

```
    patrat[2] = new Point2D.Float(patrat[1].x, C.y + latura / 2);
```

```
    patrat[3] = new Point2D.Float(patrat[0].x, patrat[2].y);
```

```
    g.setColor(Color.red);
```

```
    g.setXORMode(Color.white);
```

```
    for(int i=0; i<100; i++)
```

```
    {  
        desen(g); sleep(100); desen(g);  
        rotatie();
```

```
    }
```

```
}
```

```
// functia de rotatie utilizand clasa Transform2D
```

```
public void rotatie()
```

```
{  
    for (int i = 0; i < 4; i++)  
        patrat[i] = Transform2D.rotatie(patrat[i], C, cosu, sinu);  
}
```