```
procedure Kappel_Ellipse(a,b)

x := a;
y := 0;
asqr := a^2;
bsqr := b^2;
a22 := asqr + asqr;
b22 := bsqr + bsqr;
xslope := b22 * a;
yslope := 0;
fmid := bsqr * (0.25 − x ) + asqr;

% Περιοχη 1

while xslope > yslope do
    begin
    plot(x,y);
    y := y + 1;
    yslope := yslope + a22;
    if fmid >= 0 then
        x := x - 1;
        xslope := xslope - b22;
        fmid := fmid - xslope;
    end {if}
    fmid := fmid + yslope + asqr;
end {while}

% Συνορο περιοχων

fmid := fmid - (yslope + xslope)/2 + 0.75 *(bsqr - asqr);

% Περιοχη 2

while x >= 0
    plot(x,y);
    x := x - 1;
    xslope := xslope - b22;
    if  fmid <= 0 then
        y := y + 1;
        yslope := yslope + a22;
        fmid := fmid + yslope;
    end {if}
    fmid := fmid − xslope + bsqr;
end {while}
```