

Data: ___/___/___ Aluno(s): _____

Projeto 2: Limações

Objetivo

Estudar limações que são equações que são da forma

$$r = 1 + c \cdot \cos(\theta) .$$

Resumo

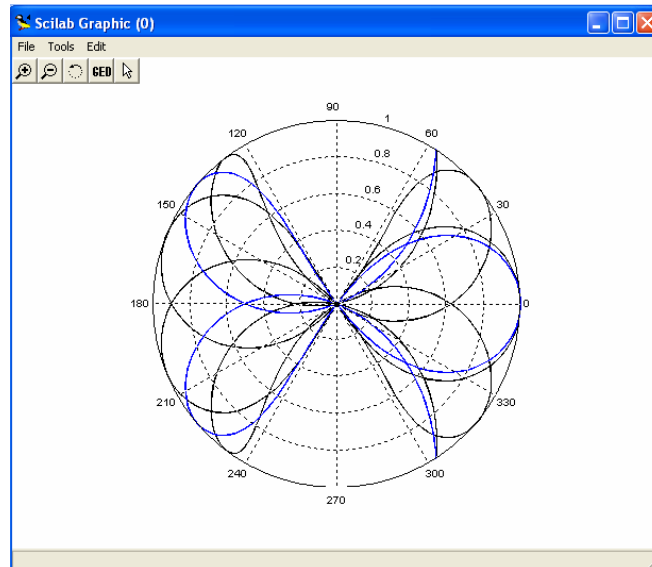
Este projeto antes da exemplos discute gráficos polares e então limações.

Tarefa:

Os gráficos abaixo foram obtidos com o Scilab:

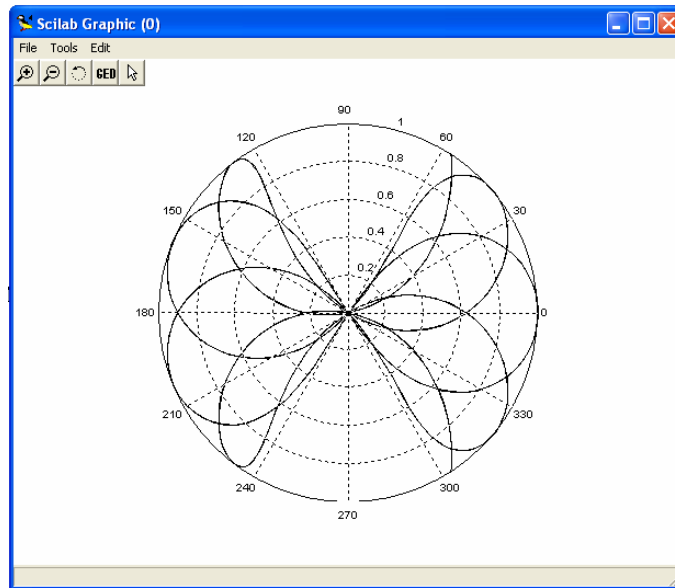
a) `-->t= 0:.01:2*%pi;`

`-->clf();polarplot([sin(7*t) sin(6*t)],[cos(8*t) cos(8*t)],[1,2])`

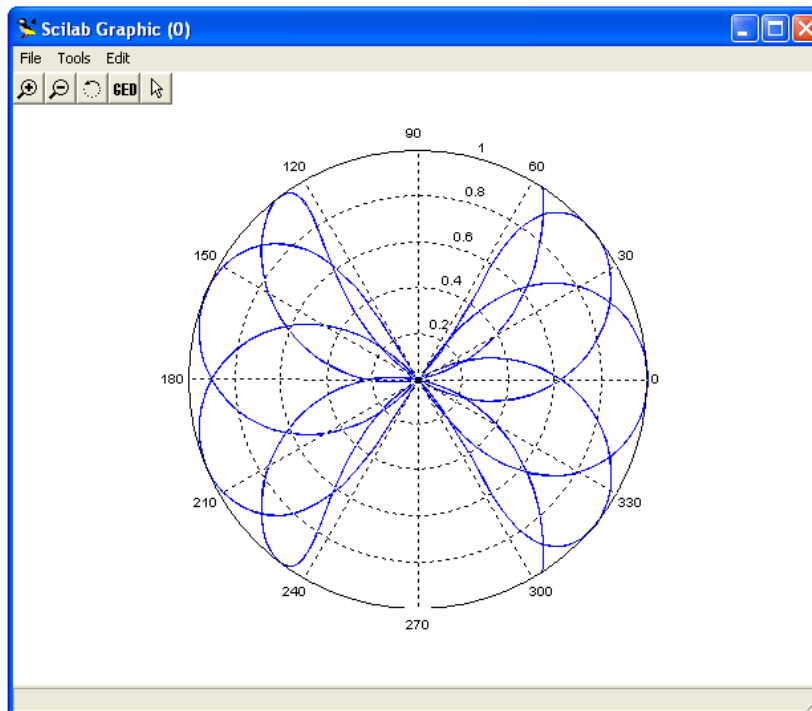


b) `-->t= 0:.01:2*%pi;`

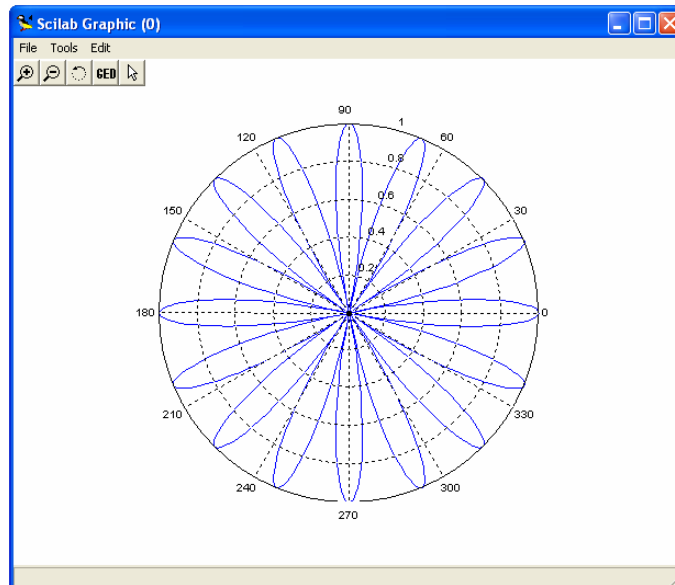
`-->clf();polarplot([sin(7*t)],[cos(8*t)],[1])`



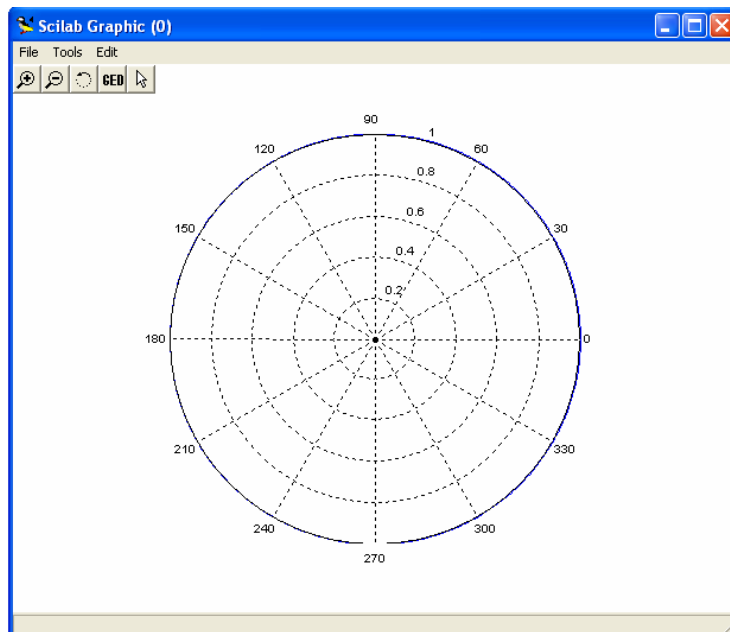
c) -->t= 0:.01:2*%pi;
 -->clf();polarplot([sin(7*t)],[cos(8*t)],[2])



d) -->t= 0:.01:2*%pi;
 -->clf();polarplot([t],[cos(8*t)],[2])



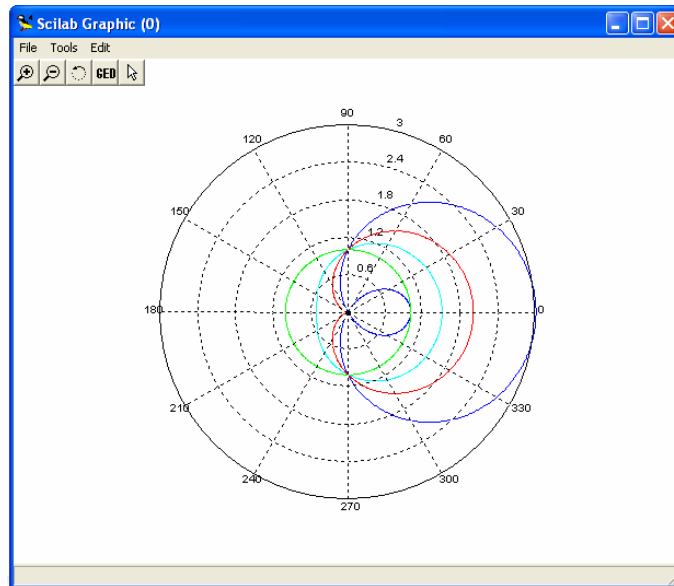
e) -->t= 0:.01:2*%pi;
 -->clf();polarplot(t',[ones(t)],[2])



2) Limaçons

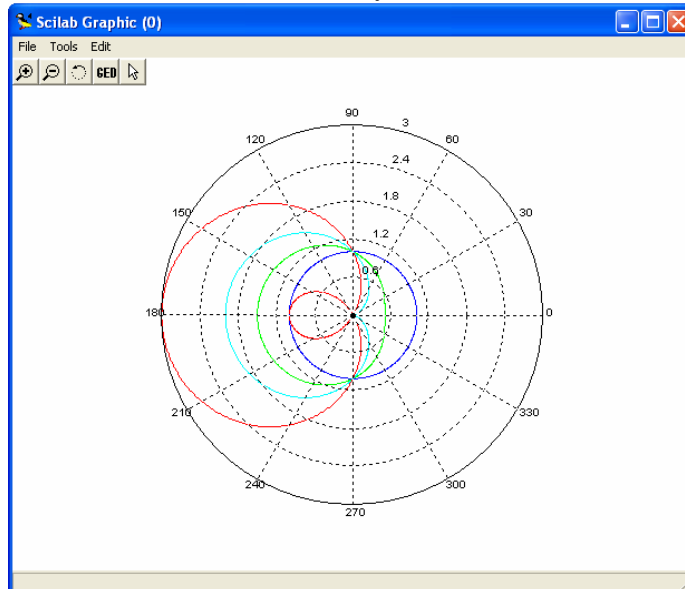
(A)

```
-->t= 0:.01:2*%pi;
-->clf();polarplot([t' t' t' t'],[ ones(t')+2.0*cos(t') ones(t') ones(t')+0.5*cos(t')
ones(t')+1.0*cos(t')],[2,3,4,5])
-->a=gca();
-->a.data_bounds=[-4,-2;4,2]; // set the boundary values for the two-dimensional views
```



(B)

```
-->t= 0:.01:2*%pi;
-->clf();polarplot([t' t' t' t' t'],[ ones(t') ones(t')-0.5*cos(t') ones(t')-1.0*cos(t') ones(t')-
2.0*cos(t') ],[2,3,4,5])
-->a=gca();
-->a.data_bounds=[-4,-2;4,2]; // set the boundary values for the two-dimensional views
```



3) Repita tudo o que foi feito usando: $r = 1 + c \cdot \sin(\theta)$

Seu relatório será os Script Scilab com seus gráficos respectivos e também as resposta para a parte (3).