PME 3380 – Modelagem de Sistemas Dinâmicos

Lista A – 27/08/2020

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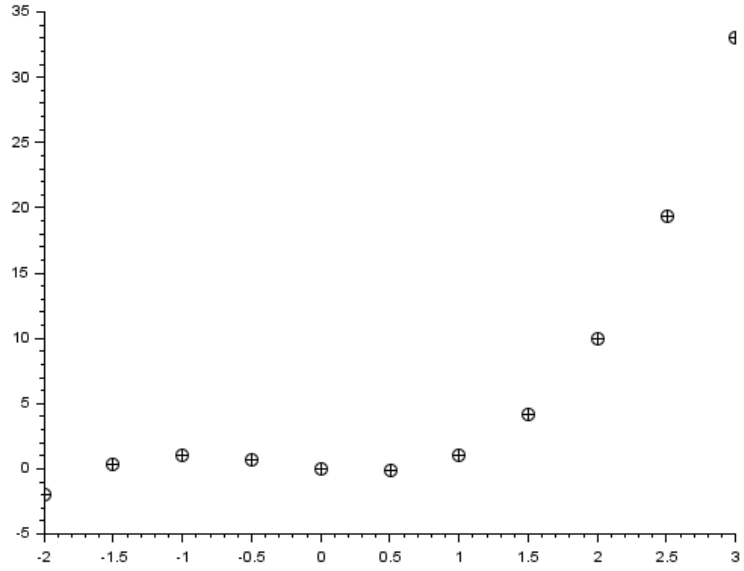
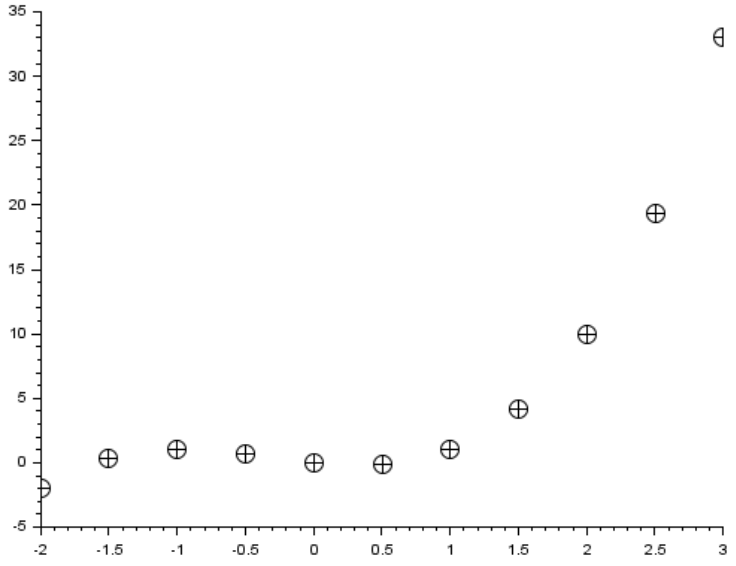
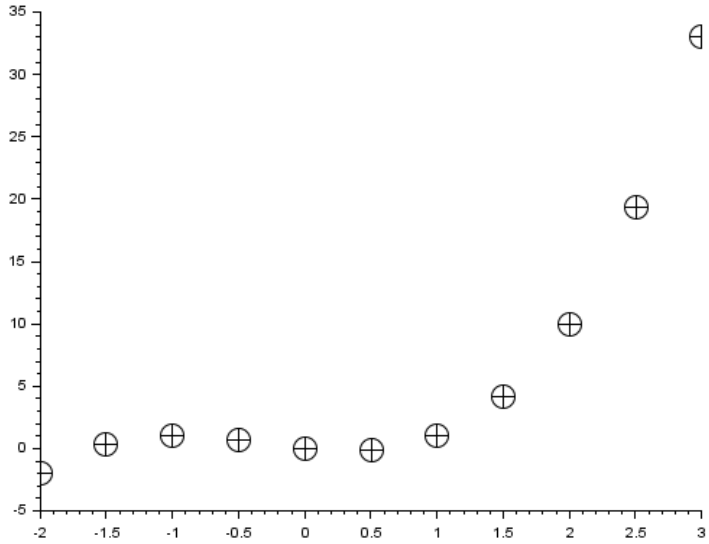
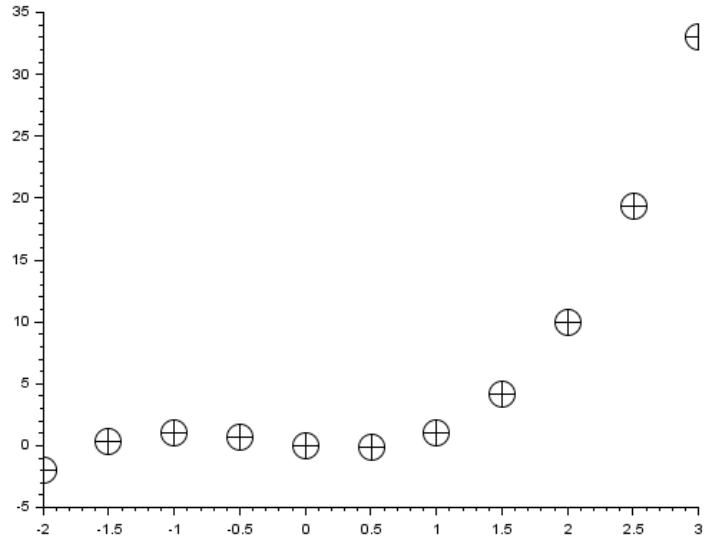
1. Para a função definida no código da lista, o valor da mesma em $\frac{\pi}{2}$ vale 3.60789621007 .
2. Os gráficos gerados no segundo código foram:









3. Códigos utilizados:

Ex 1

```
function [y]=teste(x)
y=x+x^2+sin(x*2*%pi);
endfunction

teste(0.5*%pi)
```

Ex 2

```
deff('[y]=test0(x)','y=x+x^2+sin(x*2*%pi)')
deff('[y]=test1(x)','y=-x+x^2+x^3')
deff('[y]=test2(x)','y=sqrt(x)')
x=-2:0.5:3;
```

```
a=1;
b=0;
t1=(a==1);
t2=(b>0.5);
if and([t1, t2]) then
y=test0(x);
elseif or([t1, t2]) then
y=test1(x);
else
y=test2(x);
end,
plot2d(x,y,-3)
set("current_figure",1)
xset('mark size', 2)
plot2d(x,y,-3)
set("current_figure",2)
xset('mark size', 4)
plot2d(x,y,-3)
set("current_figure",3)
xset('mark size', 5)
plot2d(x,y,-3)
```