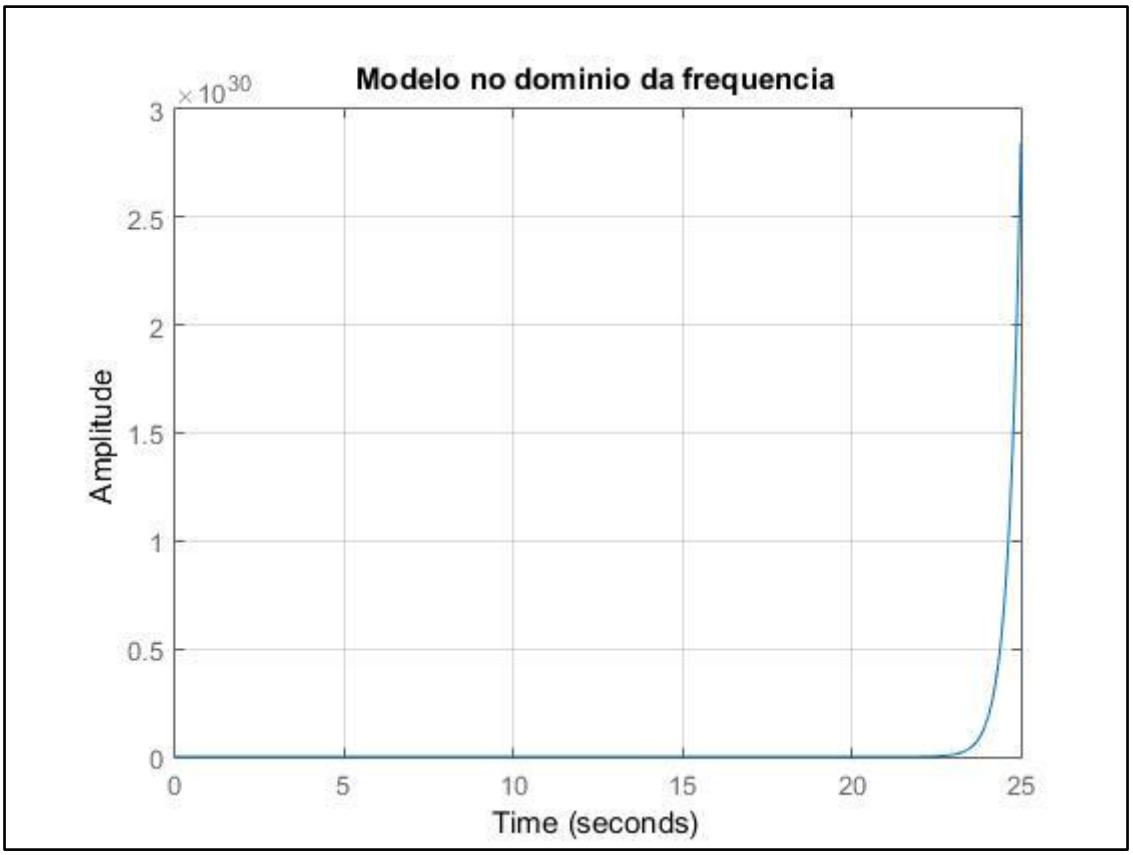
Exercício – ENCONTRO 1A

a)

```
num = [1 7 10 -4 0];
den = [1 6 0 -48 -64];
TF = tf(num,den);
figure (1);
step (TF);
grid; hold on;
title('Modelo no dominio da frequencia');
```

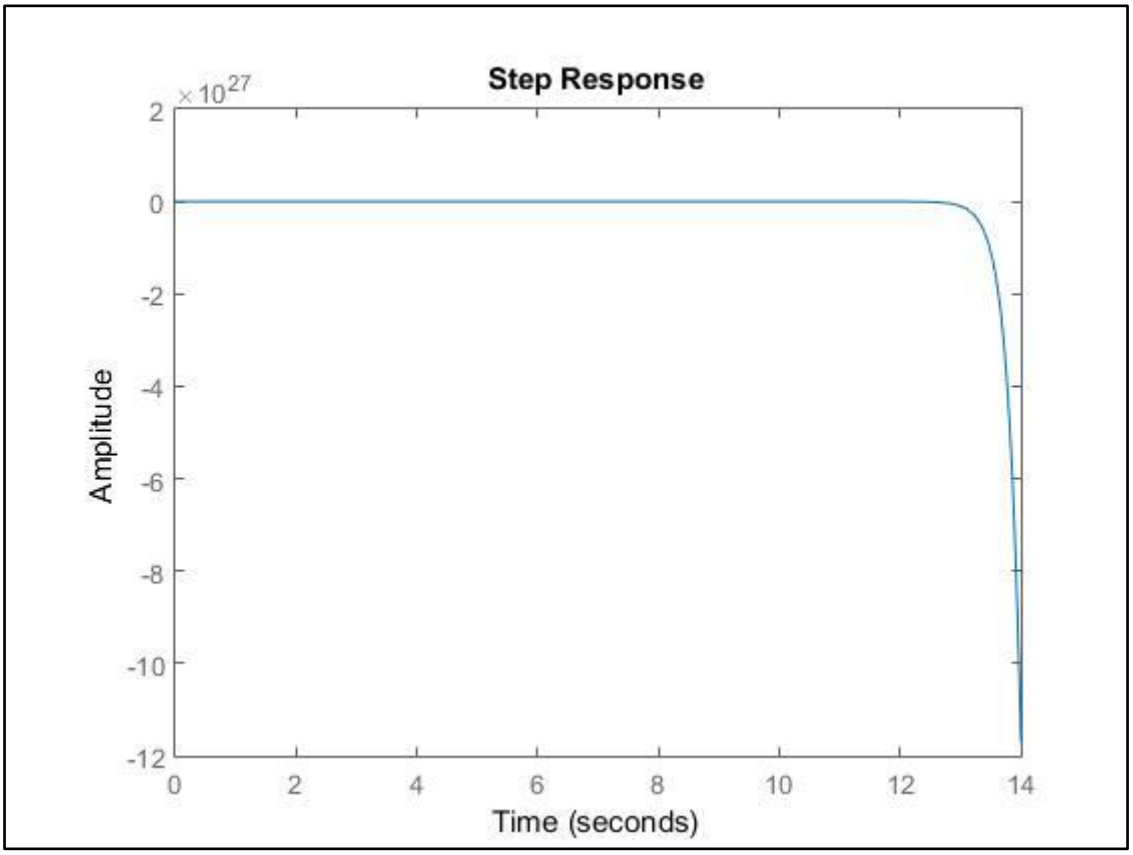


b)

```
clc;
clear all;
close all;

A=[0 1 0.5 0.5; 2 2 1 0; 4 4 -2 0; 8 16 0 0];
B=[1; 0; 4; 8];
C=[-1 0 0 0];
D=[1];

F = ss(A,B,C,D)
step(F);
```

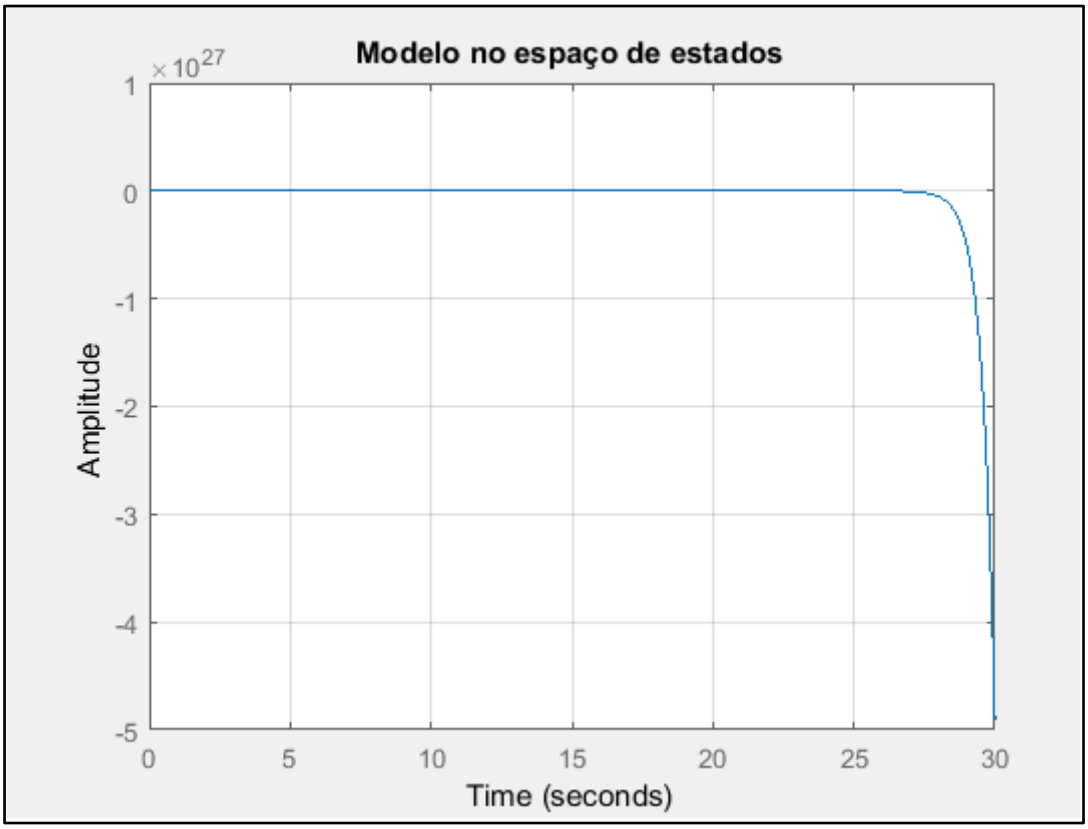


Exercício – ENCONTRO 1B

b)

```
A = [0 1 0 0 ; 3.22 1 -2.22 0 ; 0 0 0 1 ; 1.11 0 -1.61 0];
  B = [0; 0; 0; 0.5];
  C = [0 0 1 0];
  D = 0;

  X2 = ss(A,B,C,D);
  figure (3)
  step(0.1*X2)
  grid; hold on;
  title('Modelo no espaço de estados');
```



c)

```
num = [1 1 3.22];
den = [2 2 9.66 3.22 5.44];

TF = tf(num,den);
figure (4);
step (0.1*TF);
grid; hold on;
title('Modelo no dominio da frequencia');
```