[ARTEM DUDKO] - [PS3] - [2022]

[PROBLEM #3.7]

```
clc; clear;

a = [5 1]
b = [1]


t = -1:0.01:10;
x = exp(-3*t) .* heaviside(t);

sys=tf(b,a);
y=lsim(sys,x,t);

y2 = 0.5*exp(-3*t) - 0.5*exp(-5*t);


%%xlim([-1 10]);
%%plot(t,y,'--',t,y2,'-')
figure(1)
subplot(211)
plot(t,y2,'--')
subplot(212)
plot(t,y,'-')


a =

     5     1


b =

     1

Warning: Simulation will start at a nonzero initial time.
```
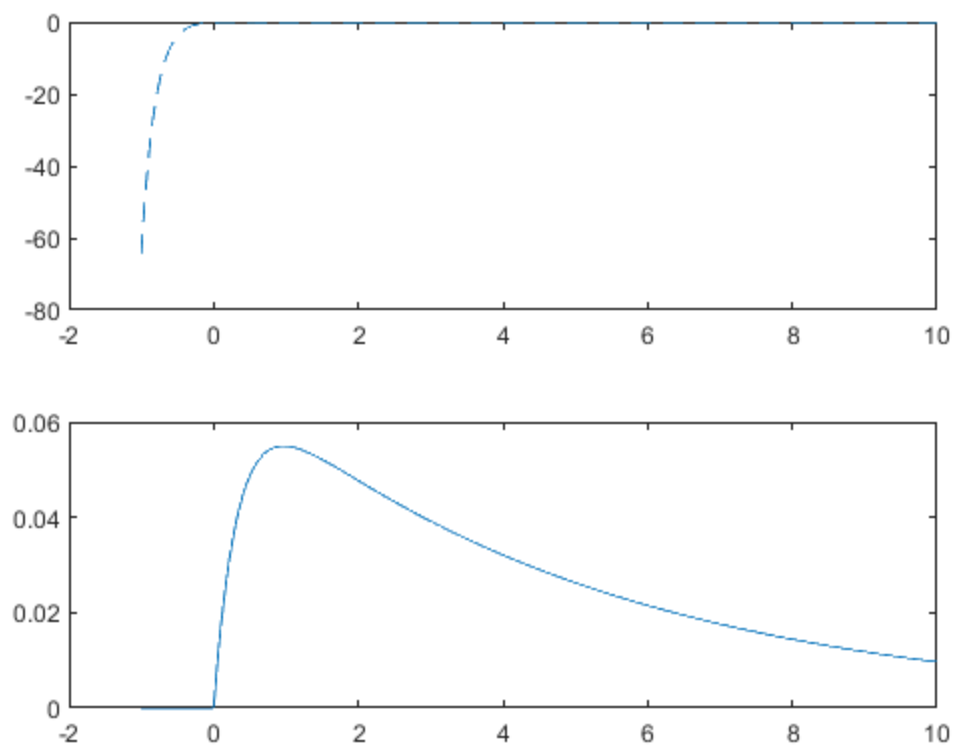
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