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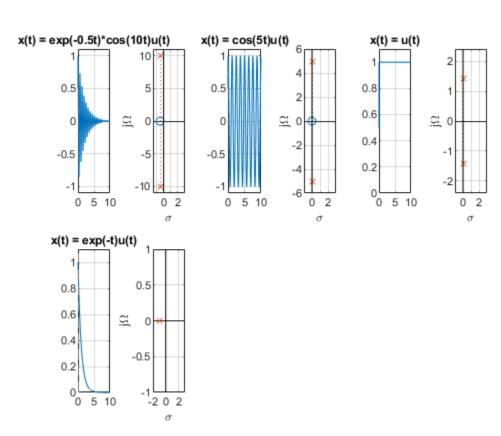
CPE 381-01.

Homework 2 - Q6.

02/18/2023.

```
syms t x1 x2 x3 x4
x1 = \exp(-0.5*t)*\cos(10*t)*heaviside(t);
X1=laplace(x1);
x2 = cos(5*t)*heaviside(t);
X2=laplace(x2);
x3 = heaviside(t);
X3=laplace(x3);
x4 = \exp(-t) * heaviside(t);
X4 = laplace(x4);
subplot(261)
fplot(x1,[0,10]);grid
axis([0\ 10\ -1.1\ 1.1]);title('x(t) = exp(-0.5t)*cos(10t)u(t)')
subplot(262)
splane([1 0.5], [1 1 100.25])
subplot(263)
fplot(x2,[0,10]);grid
axis([0 10 -1.1 1.1]);title('x(t) = cos(5t)u(t)')
subplot(264)
splane([1 0], [1 0 25])
subplot(265)
fplot(x3,[0,10]);grid
axis([0 10 0 1.1]);title('x(t) = u(t)')
subplot(266)
splane([0 1], [1 0 2])
%splane([0 1], [1 1])
subplot(267)
fplot(x4,[0,10]);grid
```

```
 \begin{aligned} & \text{axis}([0 \ 10 \ 0 \ 1.1]); \\ & \text{title}('\mathbf{x}(t) = \exp(-t)\mathbf{u}(t)') \\ & \text{subplot}(268) \\ & \text{splane}([0 \ 1], \ [1 \ 0 \ 2]) \\ & \text{splane}([0 \ 1], \ [1 \ 1]) \end{aligned}
```



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