
```

clc
close all
clear
syms y(t) s Y u(t) U

Dy = diff(y,t,2) + 5*diff(y,t) + 25*y == 25*u;

LHS = laplace(Dy, t, s);

LHS = subs(LHS,{laplace(y,t,s),laplace(u,t,s),y(0),subs(diff(y,t),t,0)},
{Y,U,0,0});

pretty (LHS)

Y_over_U = solve(LHS,Y)/U;

pretty (str2sym('Y(s)')/str2sym('U(s)'))

pretty (solve(LHS,Y)/U)
m=1 ;c=5;k=25;
G = tf(25,[m c k]);
step(G,30)

title('أحمد خالد فتحي أحمد');


$$Y s^2 + 5 Y s + 25 Y == 25 U$$

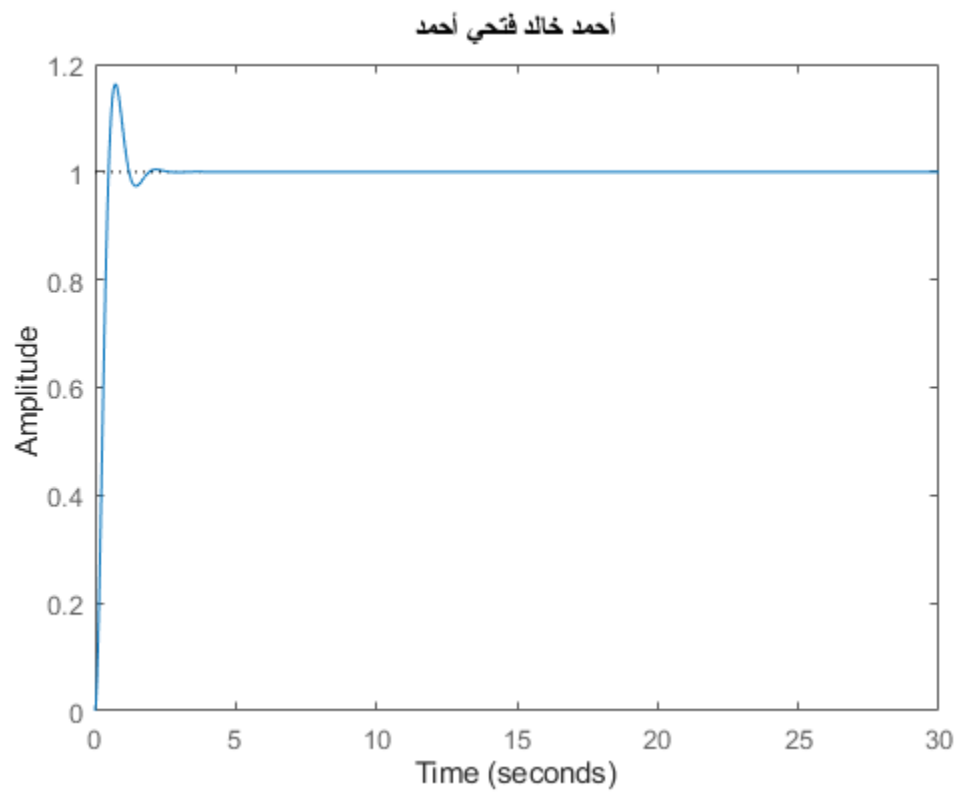


$$\frac{Y(s)}{U(s)}$$



$$\frac{25}{s^2 + 5 s + 25}$$


```



$$e^{\pi i} + 1 = 0$$

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