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Professor Tom

DSP Lab2

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Problem One Foil Method

Problem Two Convolute

|  |  |  |
| --- | --- | --- |
| 10 | 6 |  |
|  | 20 | 12 |
| 10 | 26 | 12 |

Problem Three Convolute

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | 5 |  |  |
|  | 4 | 20 |  |
|  |  | 3 | 15 |
| 1 | 9 | 23 | 15 |

Problem Four

T = 10^(-8);

input(1:1001) = 1;

nT = 0:T:10^-5; %10^-5 is the first 10 micro seconds

h = (10^6)\*exp(-(10^6)\*nT);

convolved = conv(input, h)

subplot(2,1,1)

plot(nT, convolved(1:1001))

title("Problem 4")

xlabel("Time")

ylabel("h")

Problem Five

T = 10^(-8);

input(1:1001) = 1;

nT = 0:0.01:10

g = exp(-nT).\*sin(nT).\*cos(nT)

conv2 = conv(input, g)

subplot(2,1,2)

plot(nT, conv2(1:1001))

title("Problem 5")

xlabel("Time")

ylabel("g")

Problem Four and Five Graphs

A close up of a map

Description generated with very high confidence