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Lab End Exam

$$sf(u) = \frac{\gamma^u - \gamma^{-u}}{\sqrt{5}} \qquad cf(u) = \frac{\gamma^u + \gamma^{-u}}{\sqrt{5}}$$

$$\gamma = \frac{(1+\sqrt{5})}{2}$$

$$cqsf(u,n) = \gamma^u - \cos(n\pi u)\gamma^{-u} + i\frac{\sin(n\pi u)\gamma^{-u}}{\sqrt{5}}$$

$$u \in (-0.01, 4.02)$$

dns:- lab.m

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g = (1 + sqrt(5))/2;
x = -0.01 : 0.01 : 4.02;
sfs = (g.^x - g.^(-x))/sqrt(5);
cfs = (g.^x + g.^(-x))/sqrt(5);
plot(x, sfs, x, cfs);

function cqsf = cqsf(x,n)
    cqsf = (y.^x - cos(n.*x.*pi).*y.^(-x))/sqrt(5)
           +(sin(n.*x.*pi).*y.^(-x))/sqrt(5);
```