

fourier coeff lsin(x).sce (C:\Users\ravi1\OneDrive\Desktop\SEM-IV SCILAB 2020-21 EVEN\fourier coeff lsin(x).sce) - SciNotes

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fourier coeff lsin(x).sce (C:\Users\ravi1\OneDrive\Desktop\SEM-IV SCILAB 2020-21 EVEN\fourier coeff lsin(x).sce) - SciNotes

fourier coeff of x.sce    fourier coeff lsin(x).sce    fourier coefficients square.sce    fourier coeff x^2.sce

```

1 funcprot(0);
2 x=-3.14:.01:3.14;
1 function p=p(x);
2 p=abs(sin(x));
3 endfunction
1 function g=g(x);
2 g=(abs(sin(x)))*cos(n*x);
3 endfunction
1 function h=h(x);
2 h=(abs(sin(x)))*sin(n*x);
3 endfunction
12 a0=(1/(2*pi))*intg(-pi,pi,p,1e-3);
13 y=a0;
14 for n=1:50
15 a(n)=(1/pi)*intg(-pi,pi,g,1e-3);
16 b(n)=(1/pi)*intg(-pi,pi,h,1e-3);
17 y=y+(a(n)*cos(n*x))+(b(n)*sin(n*x));
18 end
19 plot(x,y)
20 xlabel('x','fontsize',5)
21 ylabel('y','fontsize',5)
22 title('fourier coefficients','fontsize',5)
23

```

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**fourier coefficients**

Line 2, Column 11.

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fourier coefficients square.sce (C:\Users\yavv1\OneDrive\Desktop\SEM-IV SCILAB 2020-21 EVEN\fourier coefficients square.sce) - SciNotes

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fourier coefficients square.sce (C:\Users\yavv1\OneDrive\Desktop\SEM-IV SCILAB 2020-21 EVEN\fourier coefficients square.sce) - SciNotes

fourier coeff. of x.sce fourier coeff isn(x).sce fourier coefficients square.sce fourier coeff x^2.sce

```

1 funcprot(0);
2 x=-3.14:.1:3.14;
1 function p=p(x);
2 p=1;
3 endfunction
1 function g=g(x);
2 g=(1)*cos(n*x);
3 endfunction
1 function h=h(x);
2 h=(1)*sin(n*x);
3 endfunction
12 a0=(1/(2*pi))*intg(0,%pi,p,1e-3);
13 y=a0;
14 for n=1:700
15 a(n)=(1/%pi)*intg(0,%pi,g,1e-3);
16 b(n)=(1/%pi)*intg(0,%pi,h,1e-3);
17 y=y+(a(n)*cos(n*x))+(b(n)*sin(n*x));
18 end
19 plot(x,y)
20 xlabel('x','fontsize',5)
21 ylabel('y','fontsize',5)
22 title('fourier coefficients','fontsize',5)
23

```

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fourier coefficients

Line 22, Column 41.

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fourier coeff x^2.sce (C:\Users\ravil\OneDrive\Desktop\SEM-IV SCILAB 2020-21 EVEN\fourier coeff x^2.sce) - SciNotes

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fourier coeff x^2.sce (C:\Users\ravil\OneDrive\Desktop\SEM-IV SCILAB 2020-21 EVEN\fourier coeff x^2.sce) - SciNotes

fourier coeff .of x.sce fourier coeff f sin(x).sce fourier coefficients square.sce fourier coeff x^2.sce

```

1 funcprot(0);
2 x=-3.14:.1:3.14;
1 function p=p(x);
2 p=x^2;
3 endfunction
1 function g=g(x);
2 g=(x^2)*cos(n*x);
3 endfunction
1 function h=h(x);
2 h=(x^2)*sin(n*x);
3 endfunction
12 a0=(1/(2*pi))*intg(-pi,pi,p,1e-3);
13 y=a0;
14 for n=1:700
15 a(n)=(1/pi)*intg(-pi,pi,g,1e-3);
16 b(n)=(1/pi)*intg(-pi,pi,h,1e-3);
17 y=y+(a(n)*cos(n*x))+(b(n)*sin(n*x));
18 end
19 plot(x,y)
20 xlabel('x','fontsize',5)
21 ylabel('y','fontsize',5)
22 title('fourier coefficients','fontsize',5)
23

```

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**fourier coefficients**

Line 10, Column 6. Function 'h' at Line 2.

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fourier coeff. of x.sce  fourier coeff lsin(x).sce  fourier coefficients square.sce  fourier coeff x^2.sce

```

1 funcprot(0);
2 x=-3.14:.1:3.14;
1 function p=p(x);
2 p=x;
3 endfunction
1 function g=g(x);
2 g=(x)*cos(n*x);
3 endfunction
1 function h=h(x);
2 h=(x)*sin(n*x);
3 endfunction
12 a0=(1/(2*pi))*intg(-pi,pi,p,1e-3);
13 y=a0;
14 for n=1:700
15 a(n)=(1/pi)*intg(-pi,pi,g,1e-3);
16 b(n)=(1/pi)*intg(-pi,pi,h,1e-3);
17 y=y+(a(n)*cos(n*x))+(b(n)*sin(n*x));
18 end
19 plot(x,y)
20 xlabel('x','fontsize',5)
21 ylabel('y','fontsize',5)
22 title('fourier coefficients','fontsize',5)
23

```

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fourier coefficients

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