

```
1 %Xi Kun Zou m5
2 n=[1;3;5;7;9;11;13;15;17;19;21;23];
3 T=0.1;
4 w0=2*pi/T;
5 bnodd = (8./(n*w0*T)).*(-cos((n*2*w0*T)/15)+cos((n*w0*T)/15)-cos((n*w0*T)/4)+cos(
((n*w0*T)/5))
6 t = linspace(0,T,800);
7 plot1 = bnodd(1)*sin(w0*t*n(1));
8 plot2 = plot1+bnodd(2)*sin(w0*t*n(2));
9 plot3 = plot2+bnodd(3)*sin(w0*t*n(3));
10 plot4 = plot3+bnodd(4)*sin(w0*t*n(4));
11 plot5 = plot4+bnodd(5)*sin(w0*t*n(5));
12 plot6 = plot5+bnodd(6)*sin(w0*t*n(6));
13 plot7 = plot6+bnodd(7)*sin(w0*t*n(7));
14 plot8 = plot7+bnodd(8)*sin(w0*t*n(8));
15 plot9 = plot8+bnodd(9)*sin(w0*t*n(9));
16 plot10 = plot9+bnodd(10)*sin(w0*t*n(10));
17 plot11 = plot10+bnodd(11)*sin(w0*t*n(11));
18 plot12 = plot11+bnodd(12)*sin(w0*t*n(12));
19 plot(t,plot1,t,plot2,t,plot3,t,plot4,t,plot5,t,plot6,t,plot7,t,plot8,t,plot9,t,
plot10,t,plot11,t,plot12)
20
21 xlabel({'Time', '(seconds)'})
22 ylabel({'F(t)'})
23 title('M5 12 terms of the Truncated Fourier Series')
```

```
Trial>> m5
```

```
bnodd =
```

```
    0.7047  
    0.1312  
    0.2546  
   -0.4912  
   -0.1145  
    0.1369  
   -0.0035  
    0.0849  
   -0.0026  
    0.0793  
   -0.0491  
   -0.1495
```

```
Trial>>
```

