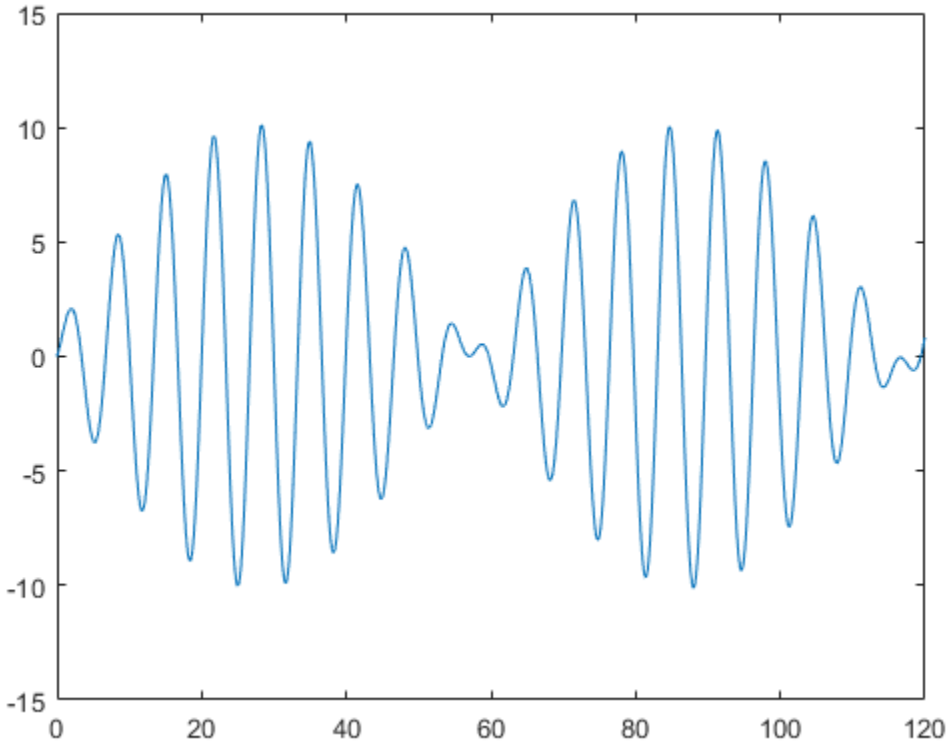
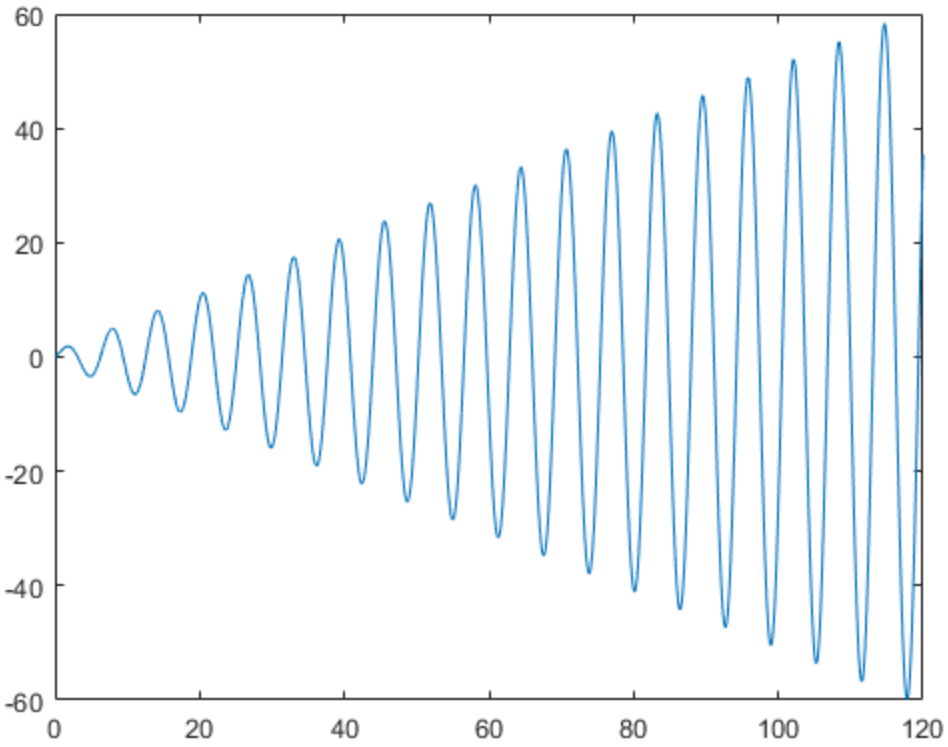
# Part b

for k=1 xfin=sin(t) + (t*sin(t))/2 for k=.8 xfin= 5*cos((2*5^(1/2)*t)/5) - 5*cos(t) + (5^(1/2)*sin((2*5^(1/2)*t)/5))/2

# Part c

```
t= 0:.1:120;
y= sin(t) + (t.*sin(t))/2;
x = 5*cos((2*5^(1/2)*t)/5) - 5*cos(t) +
 (5^(1/2)*sin((2*5^(1/2)*t)/5))/2;
figure(1)
plot(t,x)
figure(2)
plot(t,y)
```



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