1. To rewrite newton's method in book 7.1 by using (for & if break)

Ans:

```
% excludes zero roots!

steps = 0; % iteration counter
x = input( 'Initial guess: '); % estimate of root
re = 1e-8; % required relative error
myrel = 1;
for steps=1:19
    xold = x;
    x = x - f(x)/df(x);
    steps = steps + 1;
    disp( [x f(x)] )
    myrel = abs((x-xold)/x);
    if myrel <= re
        break;
    end
end
if myrel <= re
    disp( 'Zero found at' )
    disp( x )
else
    disp( 'Zero NOT found')
end
```

2. Function handle: (a) Find the minimum value for the function $y = 1 + e^{-0.2x}\sin(x+2)$, for the interval of $0 < x < 10$. (Ans: (x,y)=(2.515, 9.0). (Use fminbnd)
   (b) Use fplot to plot this function for the interval of $0 < x < 10$.
   (c) Write this function as the parametric form, that is
   $y = 1 + e^{-0.2x}\sin(x+c)$, where c is the parameter.
   Do the same thing as (a) & (b), by given c=2.5.

3. Exer in textbook 7.2,7.4,7.5,7.6, 7.8,7.9.