

Ch_7_Lesson_5_Ex_1

```
clear
```

```
R = 5;
```

```
L = 1;
```

```
VB = 10;
```

```
dt = 0.02;
```

```
I(1) = 0; % I is the circuit current, dI is the rate of change of I
```

```
t(1) = 0;
```

```
for i=2:101
```

```
    dI = -I(i-1)*R/L + VB/L; % value of dI at start of subinterval i-1
```

```
    I(i) = I(i-1) + dI*dt; % project I over subinterval i-1
```

```
    t(i) = t(i-1) + dt;
```

```
end
```

```
plot(t,I)
```