

Question No. 3

Solving the equation using the dsolve command

```
1.commandwindow
2.clear
3.clc
4.syms I(t) L R E
5.df = [diff(I,t)*L + R*I == E]
6.dfcondition = [I(0) == 0 ]
7.dg = dsolve(df,dfcondition)
8.pretty(dg)
```

```
commandwindow
```

```
df(t) =
```

```
L*diff(I(t), t) + R*I(t) == E
```

```
dfcondition =
```

```
I(0) == 0
```

```
dg = (E - E*exp(-(R*t)/L))/R
```

```
      /  R t \
E - E exp| - --- |
      \  L  /
-----
      R
```

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