

QUESTION 3

```
commandwindow

clear

clc

syms I(t) E L R
phil = L*diff(I,t) + R*I == E
philcondition = [I(0)==0]
philip = dsolve(phil,philcondition)
pretty (philip)
```

$\text{phil}(t) =$

$L \frac{dI(t)}{dt} + R I(t) = E$

$\text{philcondition} =$

$I(0) = 0$

$\text{philip} =$

$(E - E \exp(-(R \cdot t) / L)) / R$

$/ \quad R \cdot t \quad \backslash$

$E - E \exp| - \frac{R \cdot t}{L} |$

$\backslash \quad L \quad /$

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R