

Document 750800
 First Order Linear Differential Equations

$f' + Pf = Q$	750820
$f'g + f(Pg) = Qg$	750830
$Pg = g'$	750840
$\frac{g'}{g} = P$	750850
$(\lambda \cdot g)' = P$	750860
$\lambda \cdot g = \int P$	750870
$g = \varepsilon \cdot (\int P)$	750880
$(fg)' = Qg$	750890
$fg = \int (Qg) + c$	750900
$f = \frac{\int (Qg) + c}{g}$	750910
$f = \frac{\int (Qg)}{g} + c \left(\frac{1}{g} \right)$	750920

Note: For additional help with a given line, refer to the document whose number is given in the right-hand margin of that line. For example, if you would like to have further discussion about the statement “ $(fg)' = Qg$ ”, then refer to document 750890.