In[1]:= **eq6 = E^-x - 2 y[x]**

Out[1]= $e^{-x} - 2\,y[x]$

In[2]:= **DSolve[y'[x] == eq6, y[x], x]**

Out[2]= $\{\{y[x] \to e^{-x} + e^{-2x}\,C[1]\}\}$

In[3]:= **sol = y[x] /. %2**

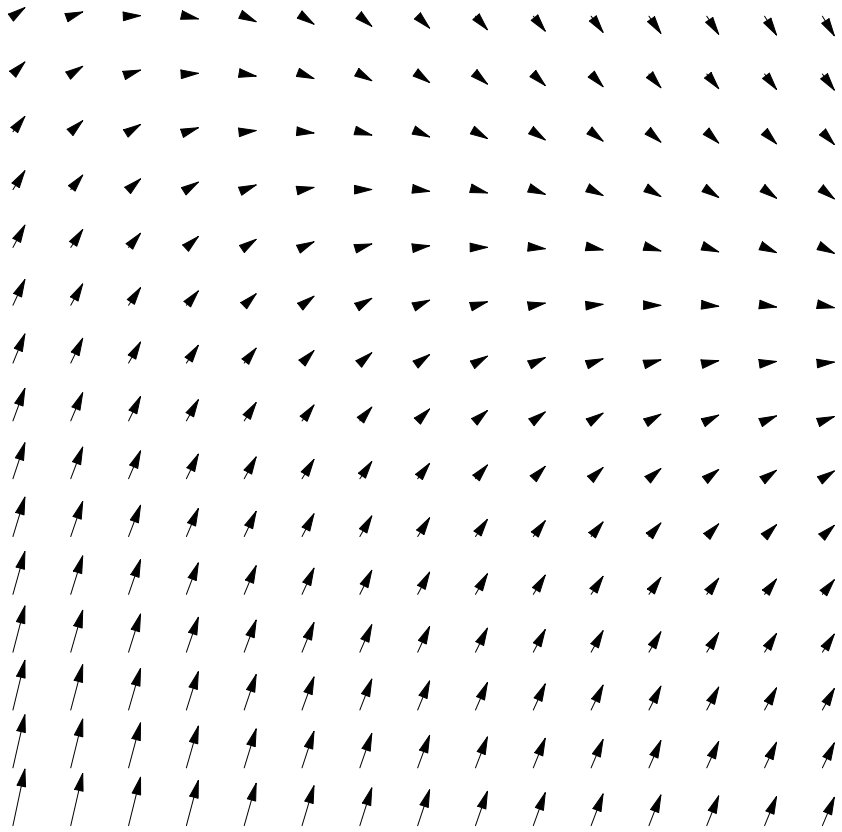
Out[3]= $\{e^{-x} + e^{-2x}\,C[1]\}$

In[4]:= **tab = Table[sol /. C[1] → a, {a, -2, 2, 0.5}]**

Out[4]= $\{\{-2\,e^{-2x} + e^{-x}\}, \{-1.5\,e^{-2x} + e^{-x}\}, \{-1.\,e^{-2x} + e^{-x}\}, \{-0.5\,e^{-2x} + e^{-x}\},$
$\{0.\,e^{-2x} + e^{-x}\}, \{0.5\,e^{-2x} + e^{-x}\}, \{1.\,e^{-2x} + e^{-x}\}, \{1.5\,e^{-2x} + e^{-x}\}, \{2.\,e^{-2x} + e^{-x}\}\}$

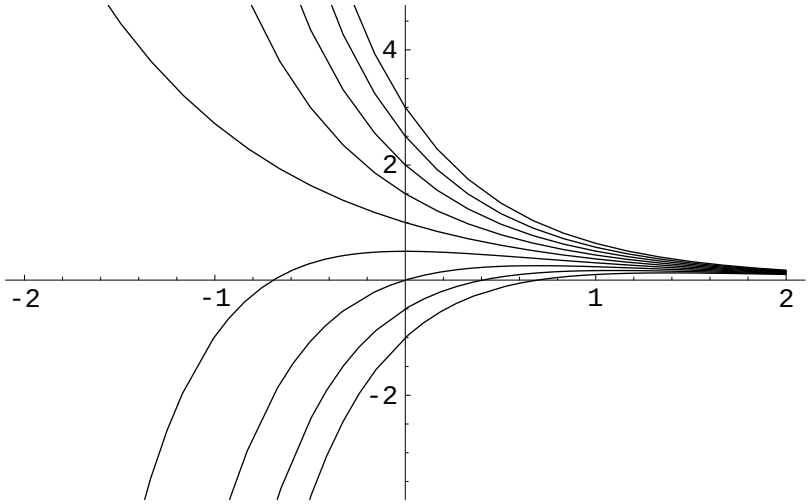
In[5]:= **<< Graphics'PlotField'**

In[6]:= **p1 = PlotVectorField[{1, E^-x - 2 y}, {x, -1, 1}, {y, -1, 1}]**



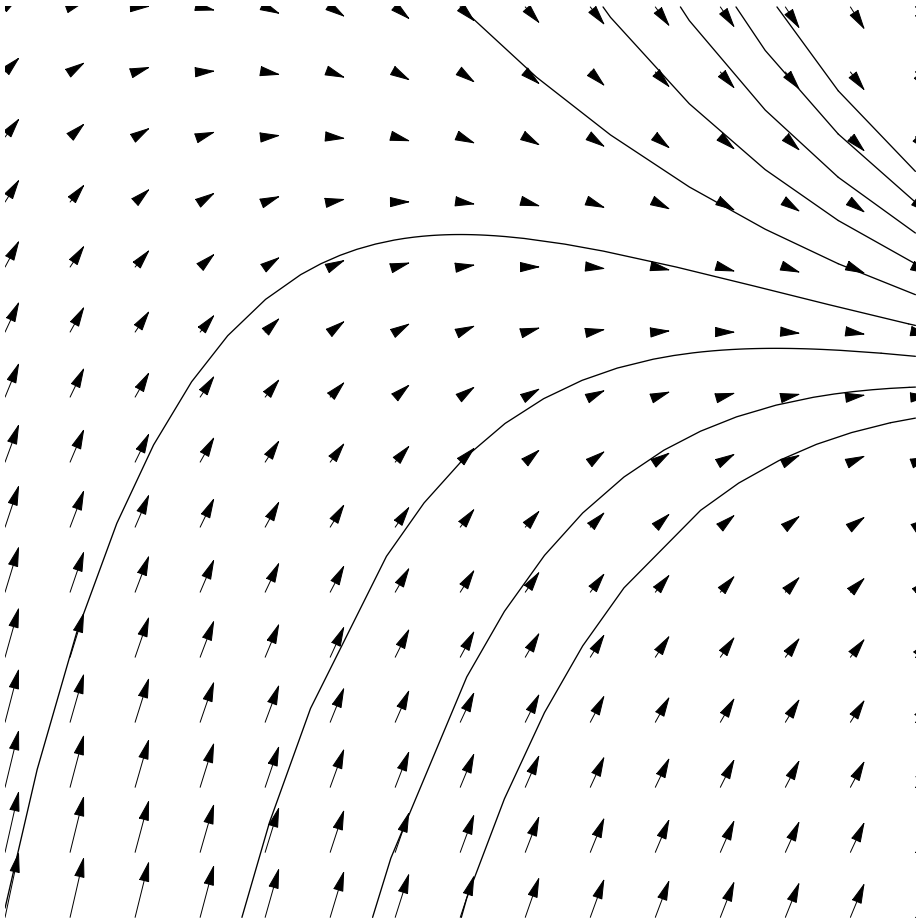
Out[6]= **-** Graphics **-**

In[7]:=
```
p2 = Plot[Evaluate[tab], {x, -2, 2}]
```



Out[7]= - Graphics -

In[8]:=
```
Show[p1, p2, PlotRange -> {{-1, 1}, {-1, 1}}]
```



Out[8]= - Graphics -