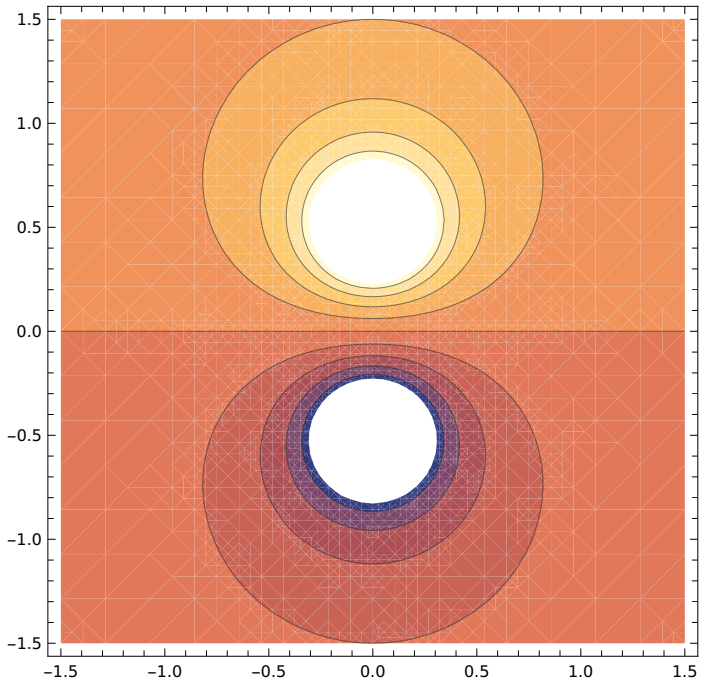
In[]:=
```
Clear[x]; Clear[y]; Clear[z]; Clear[efield];
v[x_, y_, z_] :=
 (q / (Sqrt[x ^ 2 + y ^ 2 + (z - d / 2) ^ 2])) - (q / (Sqrt[x ^ 2 + y ^ 2 + (z + d / 2) ^ 2])) /. {q → 1, d → 1}
```

In[]:=
```
ContourPlot[v[x, 0, z], {x, -1.5, 1.5}, {z, -1.5, 1.5}]
```

Out[]=



In[]:=
```
-∇{x,y,z} v[x, y, z]
```

Out[]=

$$\left\{\frac{x}{\left(x^2+y^2+\left(-\frac{1}{2}+z\right)^2\right)^{3/2}}-\frac{x}{\left(x^2+y^2+\left(\frac{1}{2}+z\right)^2\right)^{3/2}},\right.$$

$$\left.\frac{y}{\left(x^2+y^2+\left(-\frac{1}{2}+z\right)^2\right)^{3/2}}-\frac{y}{\left(x^2+y^2+\left(\frac{1}{2}+z\right)^2\right)^{3/2}},\frac{-\frac{1}{2}+z}{\left(x^2+y^2+\left(-\frac{1}{2}+z\right)^2\right)^{3/2}}-\frac{\frac{1}{2}+z}{\left(x^2+y^2+\left(\frac{1}{2}+z\right)^2\right)^{3/2}}\right\}$$

In[]:=
```
efield[x_, y_, z_] := {x / (x^2 + y^2 + (-1/2 + z)^2)^(3/2) - x / (x^2 + y^2 + (1/2 + z)^2)^(3/2),
  y / (x^2 + y^2 + (-1/2 + z)^2)^(3/2) - y / (x^2 + y^2 + (1/2 + z)^2)^(3/2),
  (-1/2 + z) / (x^2 + y^2 + (-1/2 + z)^2)^(3/2) - (1/2 + z) / (x^2 + y^2 + (1/2 + z)^2)^(3/2)}
```

In[]:=
```
efield[x, 0, z]
```

Out[]=

$$\left\{\frac{x}{\left(x^2+\left(-\frac{1}{2}+z\right)^2\right)^{3/2}}-\frac{x}{\left(x^2+\left(\frac{1}{2}+z\right)^2\right)^{3/2}},0,\frac{-\frac{1}{2}+z}{\left(x^2+\left(-\frac{1}{2}+z\right)^2\right)^{3/2}}-\frac{\frac{1}{2}+z}{\left(x^2+\left(\frac{1}{2}+z\right)^2\right)^{3/2}}\right\}$$

In[ ]:=
```
fig1 := VectorPlot[{x/(x^2 + (-1/2 + z)^2)^(3/2) - x/(x^2 + (1/2 + z)^2)^(3/2), (-1/2 + z)/(x^2 + (-1/2 + z)^2)^(3/2) - (1/2 + z)/(x^2 + (1/2 + z)^2)^(3/2)},
  {x, -1.5, 1.5}, {z, -1.5, 1.5}]
```

In[ ]:=
```
fig2 := ContourPlot[v[x, 0, z], {x, -1.5, 1.5}, {z, -1.5, 1.5}]
```

In[ ]:=
```
Show[fig2, fig1]
```

Out[ ]=