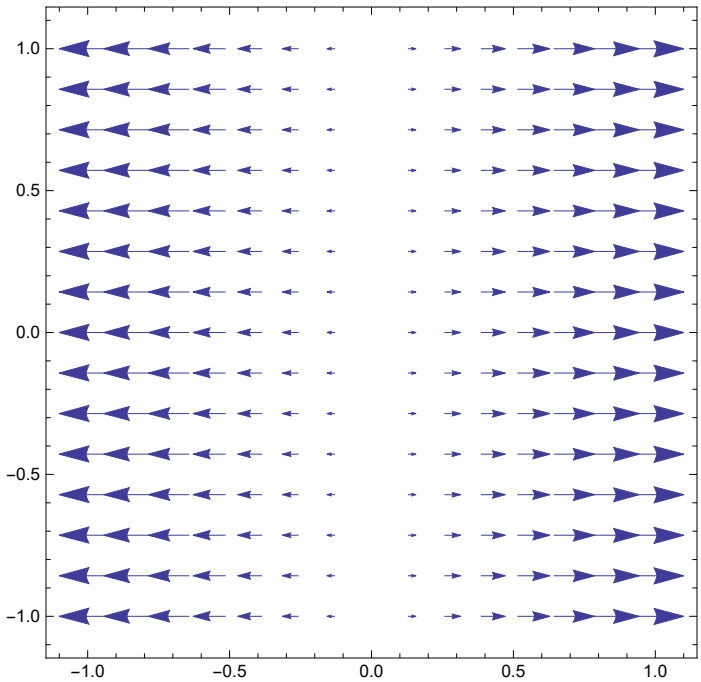
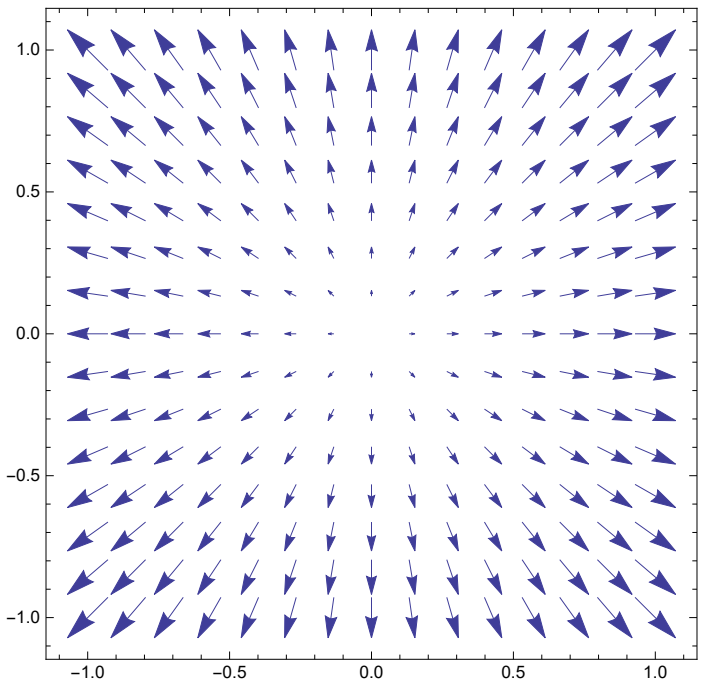
Vector Field Examples (Mathematica)

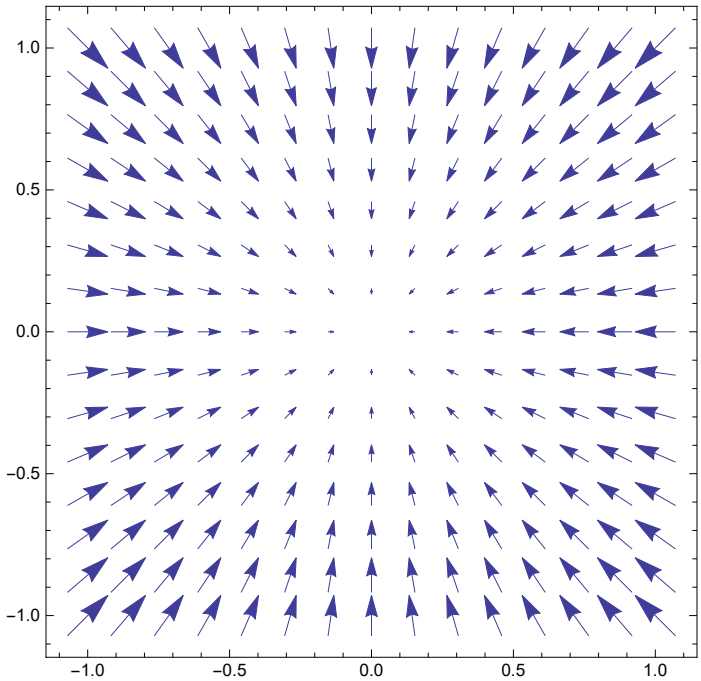
```
VectorPlot[{x, 0}, {x, -1, 1}, {y, -1, 1}]
```



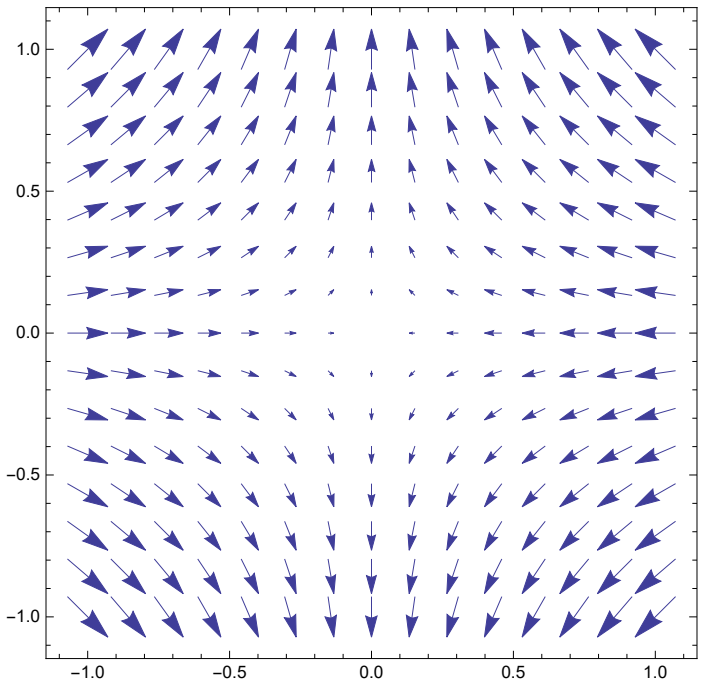

```
VectorPlot[{x, y}, {x, -1, 1}, {y, -1, 1}]
```



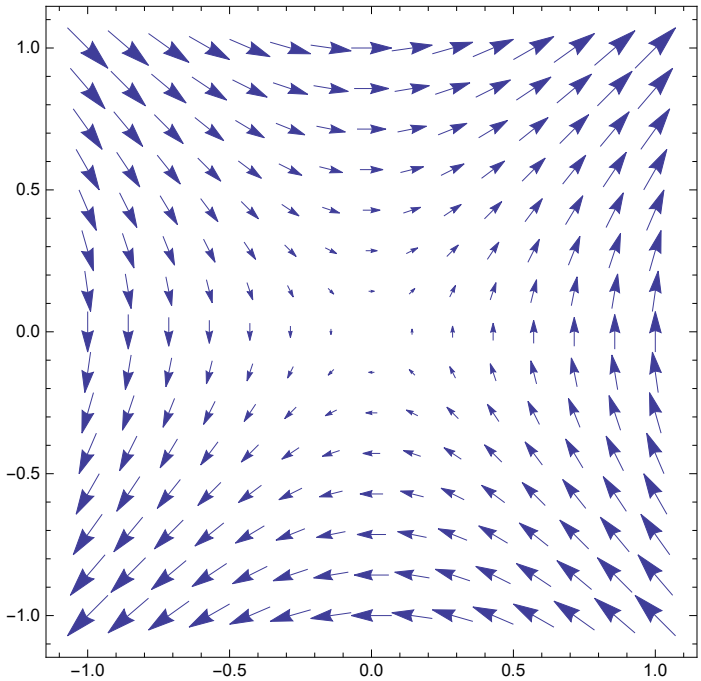
```
VectorPlot[{-x, -y}, {x, -1, 1}, {y, -1, 1}]
```



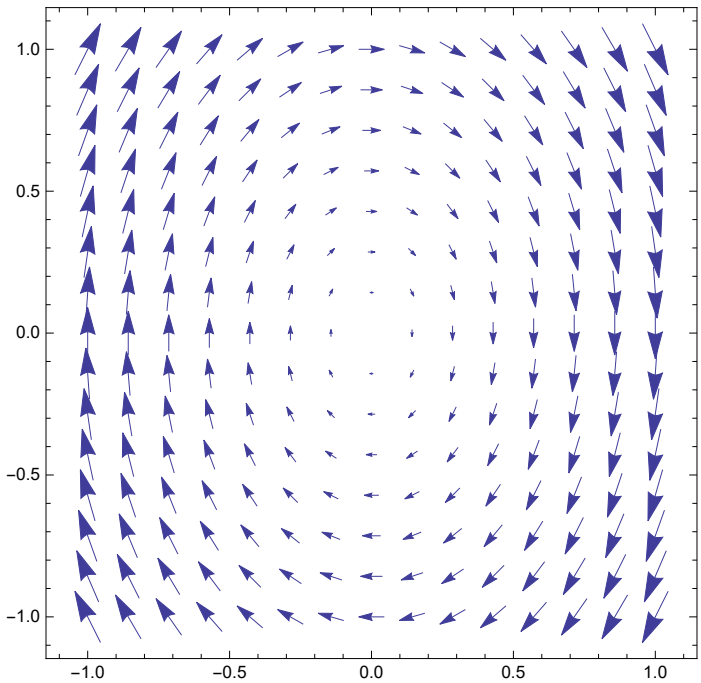

```
VectorPlot[{-x, y}, {x, -1, 1}, {y, -1, 1}]
```



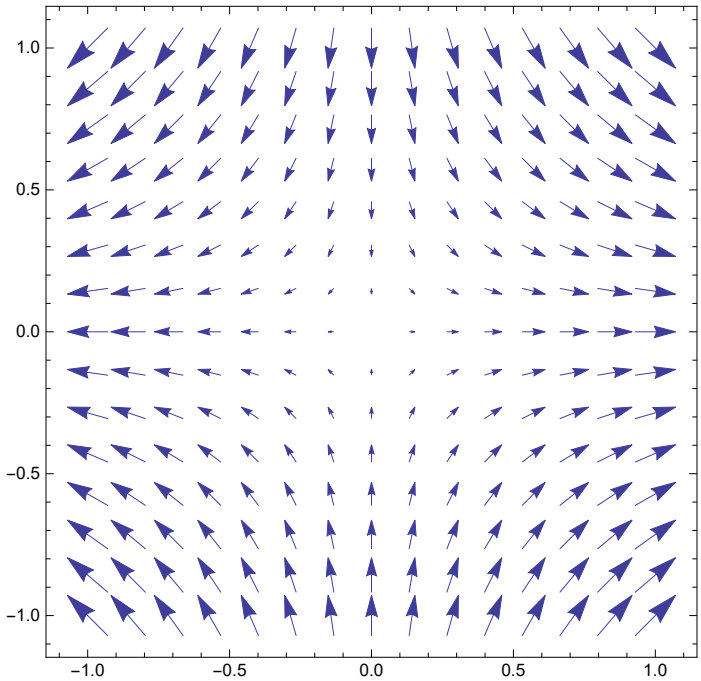
```
VectorPlot[{y, x}, {x, -1, 1}, {y, -1, 1}]
```



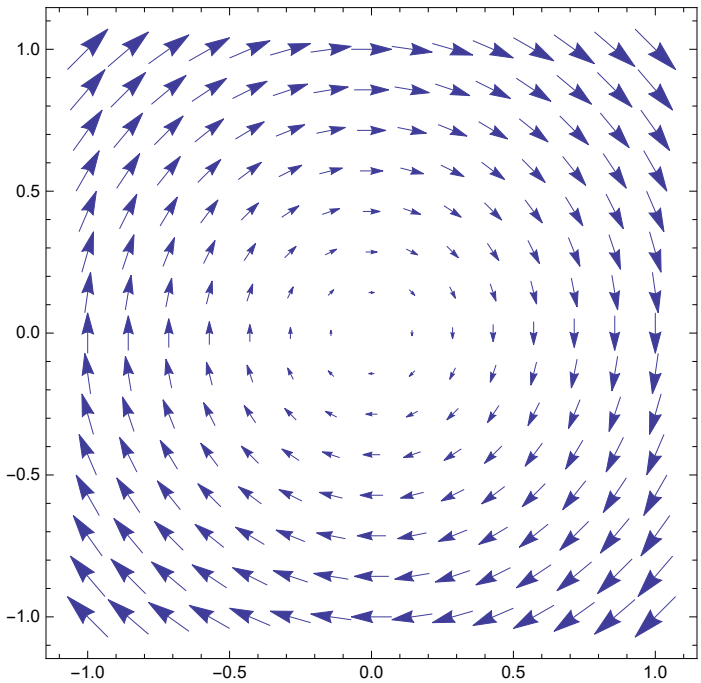

```
VectorPlot[{y, -2 x}, {x, -1, 1}, {y, -1, 1}]
```



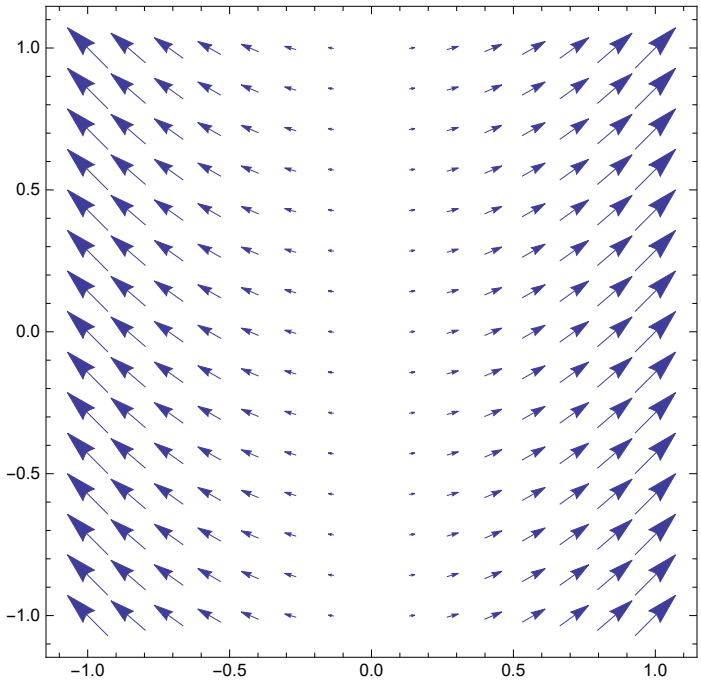
```
VectorPlot[{x, -y}, {x, -1, 1}, {y, -1, 1}]
```



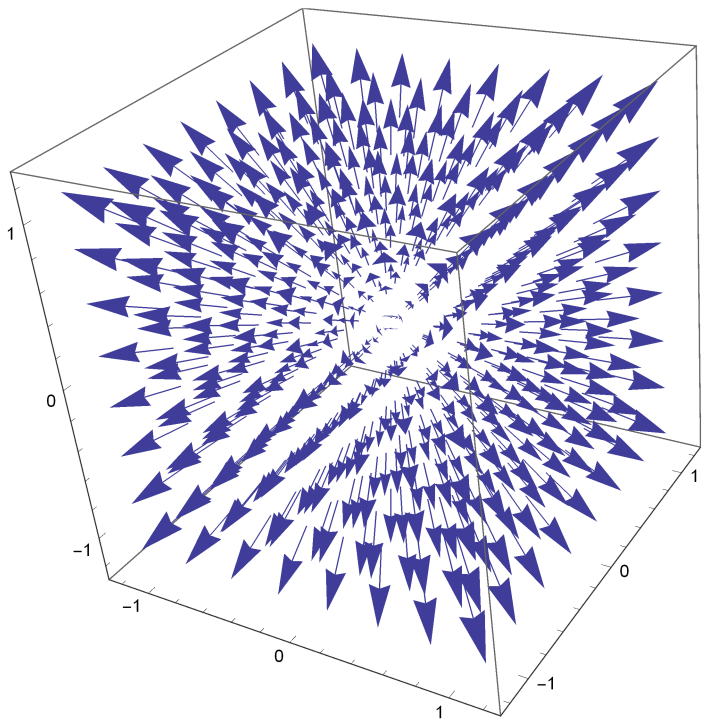

```
VectorPlot[{y, -x}, {x, -1, 1}, {y, -1, 1}]
```



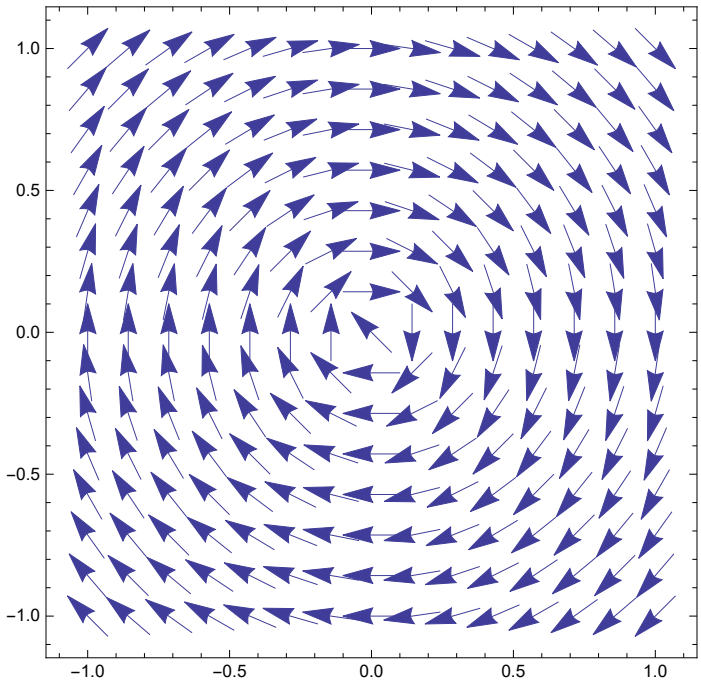
```
VectorPlot[{x, x^2}, {x, -1, 1}, {y, -1, 1}]
```




```
VectorPlot3D[{x, y, z}, {x, -1, 1}, {y, -1, 1}, {z, -1, 1}]
```



$$\text{VectorPlot}\left[\left\{\frac{y}{\sqrt{x^2+y^2}}, \frac{-x}{\sqrt{x^2+y^2}}\right\}, \{x, -1, 1\}, \{y, -1, 1\}\right]$$



$$\text{VectorPlot}\left[\left\{\frac{y}{x^2+y^2}, \frac{-x}{x^2+y^2}\right\}, \{x, .1, .2\}, \{y, .1, .2\}\right]$$