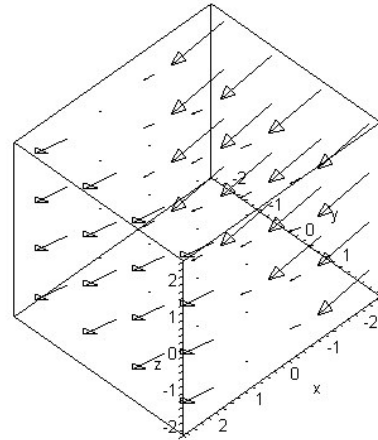
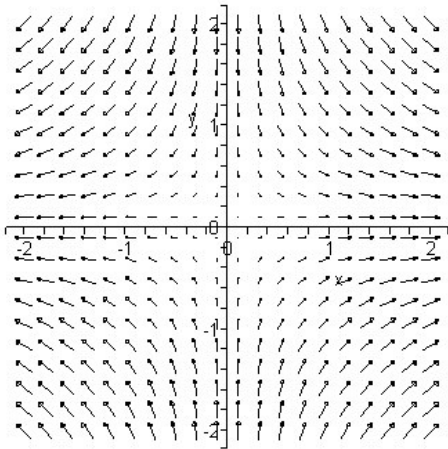


Some Vector Field Examples:

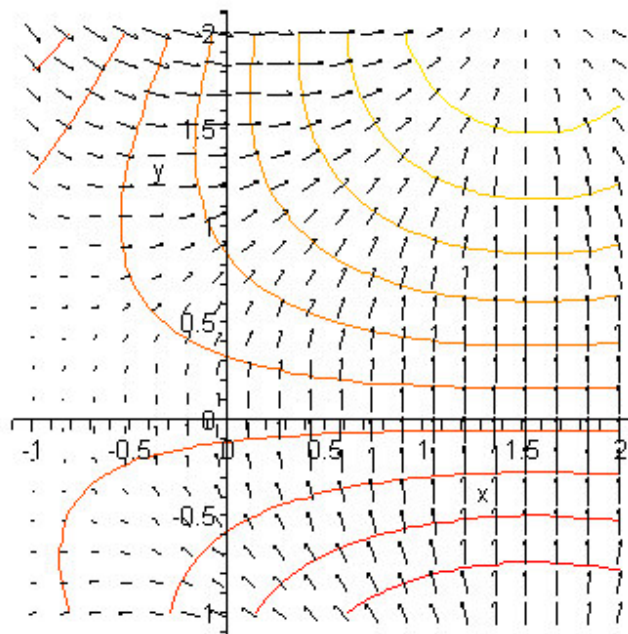
```
> restart;  
> with(plots):  
fieldplot( [x/(x^2+y^2+4)^(1/2), -y/(x^2+y^2+4)^(1/2)], x=-2..2, y=-  
2..2, arrows=medium);
```

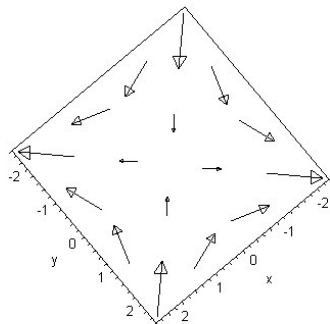
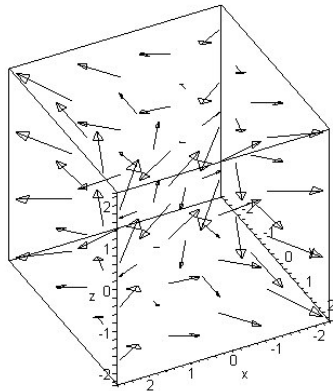
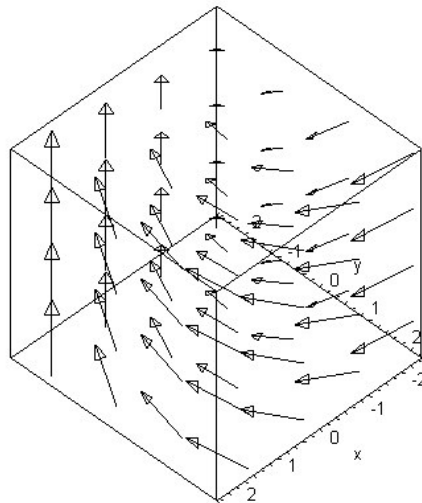
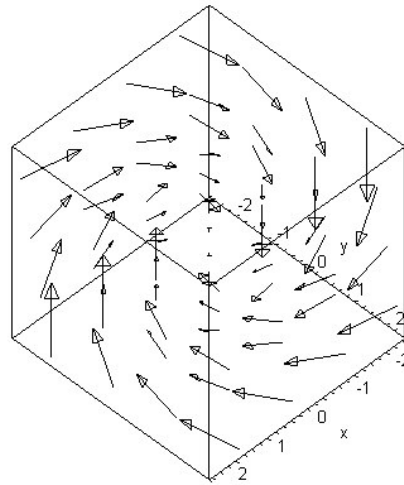
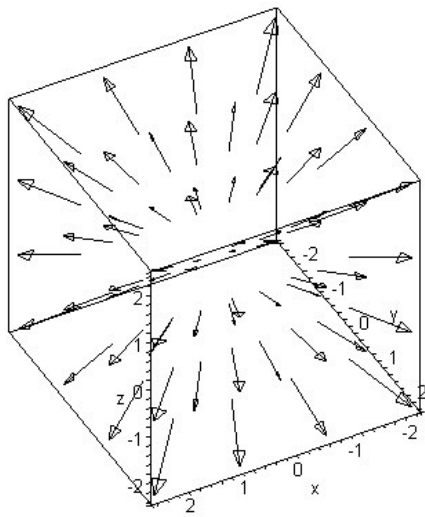


Suppose $f(x, y) = y \sin(x) + \sin(y)$. Then

$$\nabla f(x, y) = y \cos(x) \vec{i} + (\sin(x) + \cos(y)) \vec{j}$$

Contour and gradient vector plots:





Top view of same vector field