

## Exercise 5

Sketch the vector field  $\mathbf{F}$  by drawing a diagram like Figure 5 or Figure 9.

$$\mathbf{F}(x, y) = \frac{y \mathbf{i} + x \mathbf{j}}{\sqrt{x^2 + y^2}}$$

### Solution

Below is a plot of the vector field in the  $xy$ -plane. The length and hue of each vector indicate its magnitude.

