

Use the MATLAB code provided to plot the given vector field. How would you describe the behavior of these vector fields?

- $x \hat{x} + 2y \hat{y}$
- $-x \hat{x} + \hat{y}$
- $y \hat{x} - 2\hat{y}$

```
[x,y]=meshgrid(-5:0.5:5,-5:0.5:5);
```

```
U= $\hat{x}$ -component;
```

```
V= $\hat{y}$ -component;
```

```
quiver(x,y,U,V)
```