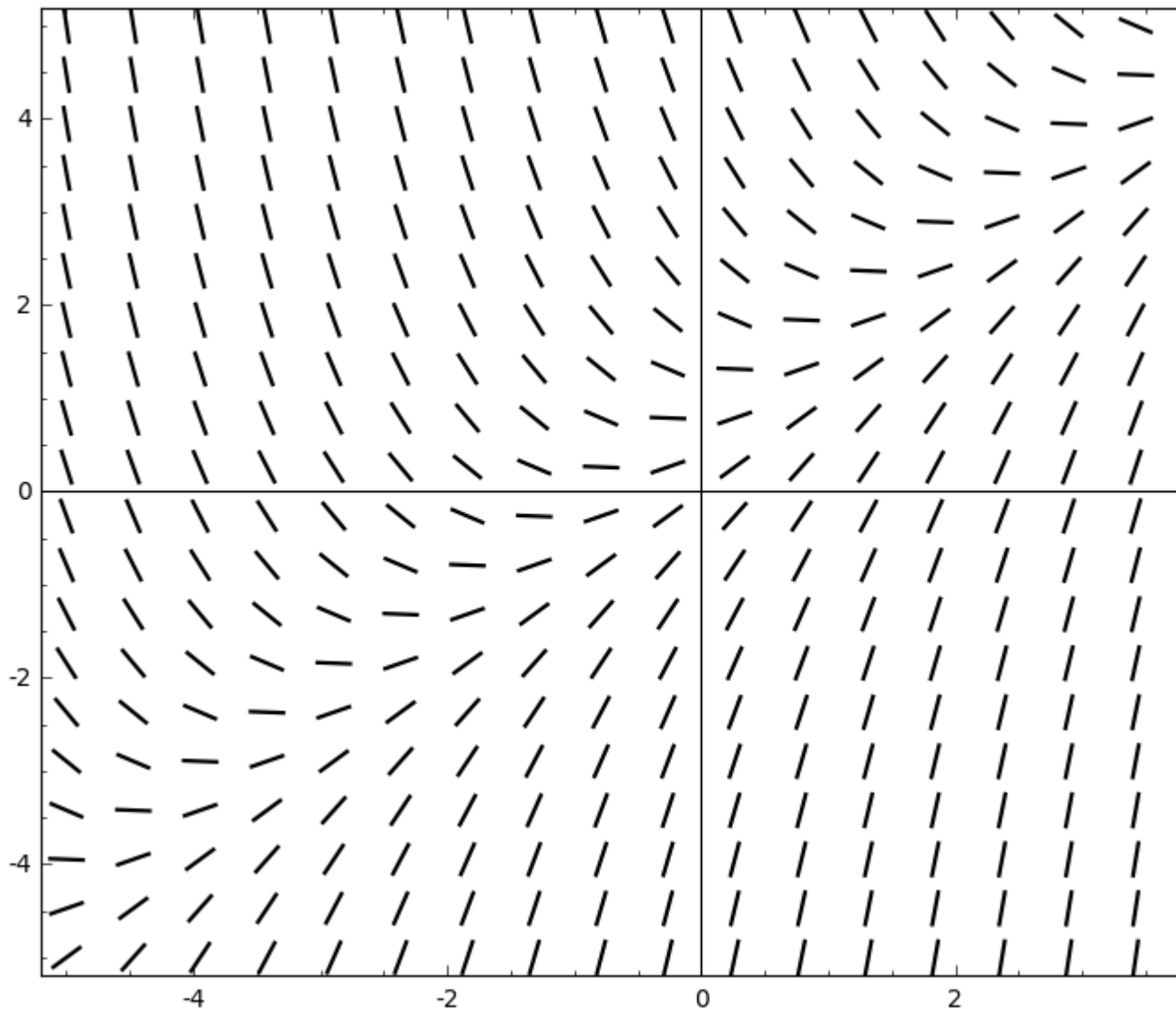


HW 1.3

1.

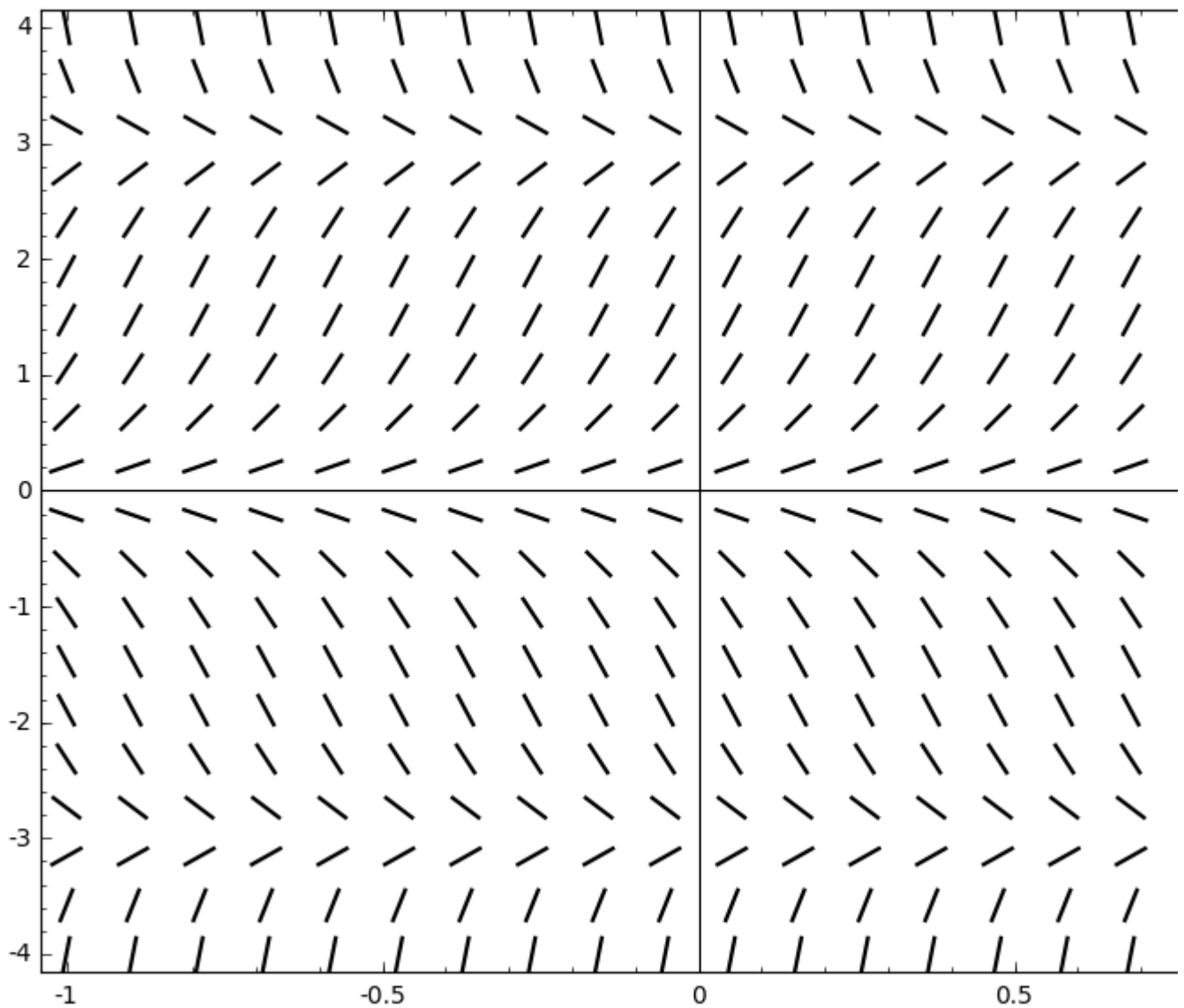
a) All the slope lines angle to joining the diagonal slope line along $y=x$

```
var('y t')
plot_slope_field(-y+t+1,(t,-5,5),(y,-5,5))
```



b) The slope field diverges from the y position of 0, up to the y position of 3, or -3 where it is zero, above/below these points the slope is negative and positive respectively.

```
var('y t')
plot_slope_field(y*(9-y**2),(t,-1,1),(y,-4,4))
```



c) All of the slope lines diverge from the diagonal, quickly moving to negative infinity or positive infinity.

```
var('y t')
plot_slope_field(y+2*t,(t,-5,5),(y,-5,5))
```

