Quiz 20

Name: _____

1. Create a phase line diagram for the differential equation

$$\frac{dy}{dx} = 4y(1 - y).$$

The equilibria are $y^* = 0$ and $y^* = 1$. If you pick, say, $y = 0.5$, the right hand side is positive, so the arrow points towards 1. At $y = 1.5$ the right hand side is negative, so the arrow points towards 1. For negative y values, the right hand side is negative, so the arrow points away from 0.