

9. [12 points] Match each of the following differential equations with its possible slope field. Circle your answers. No justification is required.

(a) $y' = ay$ with $a > 0$.

I

II

III

IV

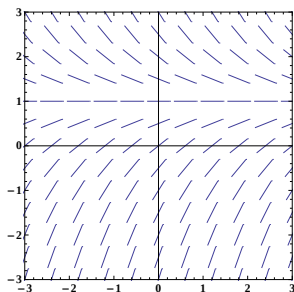
(b) $y' = k(y - a)$ with $a > 0$ and $k < 0$.

I

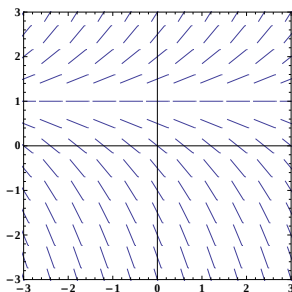
II

III

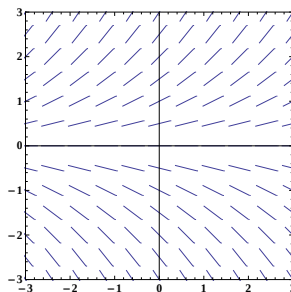
IV



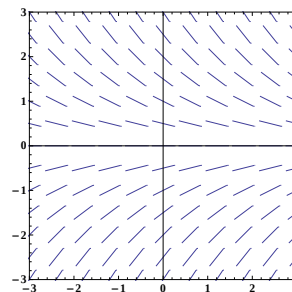
I



II



III



IV

(a) $y' = x(y - ax)$ with $a > 0$.

V

VI

VII

VIII

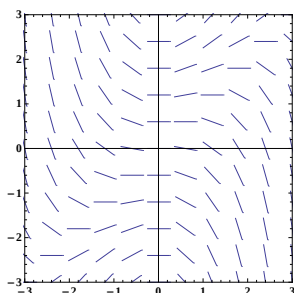
(b) $y' = ay^2 - y$ with $a > 0$.

V

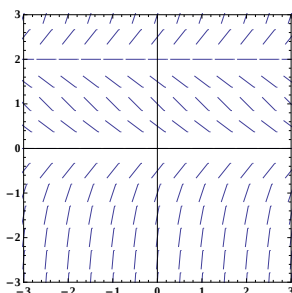
VI

VII

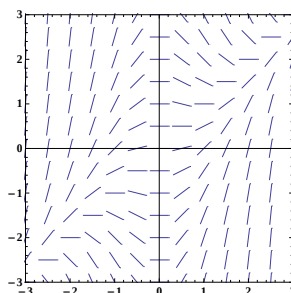
VIII



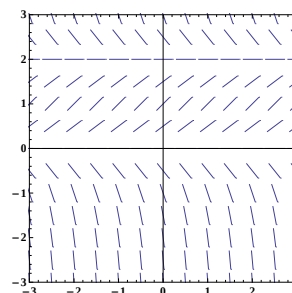
V



VI



VII



VIII