- 3. Choose from among the given phase portraits the phase portrait for the system  $\mathbf{x}' = \begin{pmatrix} 2 & a \\ 4 & 1 \end{pmatrix} \mathbf{x}$  for each given value of a (1 point each, no justification needed for this problem):
  - (a) a = 0. Phase Portrait #
  - (b)  $a = \frac{15}{16}$ . Phase Portrait #
  - (c)  $a = -\frac{26}{16}$ . Phase Portrait #







