

## *Additional Activities: Think-Share-Pair-Compare 5.6*

1. Could we write out an eigenvector decomposition for a horizontal shear matrix (i.e. are there 2 linearly independent eigenvectors that span  $\mathbb{R}^2$ )
  - a) yes and I can tell you how the eigenvectors relate to the horizontal shear
  - b) yes but I am unsure of what they are
  - c) no but I am unsure of why not
  - d) no and I can explain why not

Respond on our usual pollev if you have tech.

2. If the dominant eigenvalue is 1, what does that tell us about the longterm behavior and trajectory? Sketch a related plot on a board with your group.
3. Revisit <https://www.geogebra.org/m/nfvyhewj>, change the sliders, and drag the point around the unit circle to see the eigenvalues and eigenvectors.
4. Lastly, review 5.6 fill-in guide items, look at or work on upcoming items, or chat until I bring us back together.