

## *Additional Activities: Think-Share-Pair-Compare 1.8, 1.9*

1. Why is left multiplication important? Respond on our usual pollev if you have tech:
  - a) I have a good reason why.
  - b) I am unsure of why.
2. How is the range of a linear transformation related to the column space of the corresponding matrix representation?
3. On a board (1 per group), sketch a figure using standard mathematical axes (a unit square or a sheep or something else more creative!). Then sketch its dilation by 2, projection onto the  $y = x$  line, reflection about the  $y$ -axis, rotation by  $90^\circ$  and a horizontal shear, all of the original figure, input-output diagrams of 2D linear transformations.
4. Explore <https://www.geogebra.org/m/kharvug8>. Modify the matrix to represent those just above and enter.
5. Lastly, review 1.8 and 1.9 fill-in guide items, look at or work on upcoming items, or chat until I bring us back together