1.1, 1.2, 1.3, 1.4, 1.5 and 1.7 think-share-pair-compare

Part A: Post your responses in the think-share-pair-compare forum.

Part B: Respond separately to at least two of your classmates postings in a meaningful way that helps them understand. Try to select classmates who don't already have replies. Use their preferred name (like Dr. Sarah is mine), with something new that justifies your position on (at least) one of the questions. Don't just say, "Yeah, I agree." Instead, say, "Yes preferred name, but we also need to consider..." Or, "Preferred name, I had something different because..." You might pose questions, answer questions, extend ideas, or compare and contrast your responses and summarize what you chose and why.

1. List your preferred name.

2. Let x = rabbits, y= chickens. In Evelyn Boyd Granville's favorite challenge from the 1.1 intro video, $x + y = 17, 4x + 2y = 48$. Given a different number of heads and feet, must a solution for the numbers of rabbits and chickens always exist? Explain why or why not.

3. True/False: To check whether a vector is in the span of other vectors, it suffices to see if they are multiples. Select one of the following:

   a) True and I can explain why or quote an item and page number from the book.

   b) False and I can provide a counterexample or a correction.

4. Which of the following are true? Select one of the following:

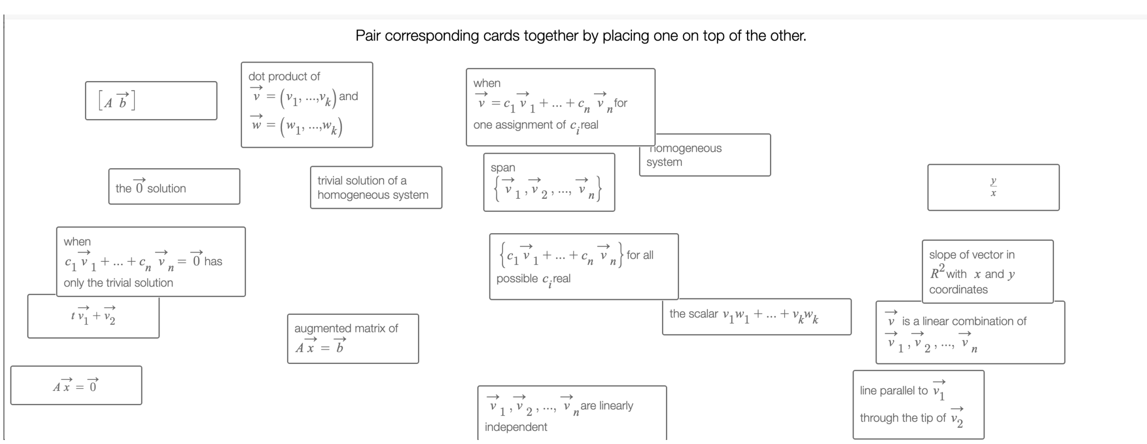
   a) $\left\{ \begin{bmatrix} 1 \\ 0 \end{bmatrix} \right\}$ is linearly independent

   b) span of $\left\{ \begin{bmatrix} 1 \\ 0 \end{bmatrix} \right\}$ is $\mathbb{R}^2$

   c) both a) and b)

   d) neither

5. To help you solidify, pair corresponding cards together by placing one on top of the other at [link is on ASULearn] (sign in to Desmos using your ASU Google account or similar). Next, use the feedback to keep sorting until you match them all correctly. Afterwards, select one or more pairings to describe and briefly report back in some way (for example, you could comment on what most interested, challenged or surprised you, or what you had a question on).



6. These sections include the following learning outcomes. Reflect on one or more of these—personal connections, experiences and/or questions you have.

   i. apply elementary row operations to transform a matrix into its row echelon form
   ii. determine solutions to linear systems by hand and in Maple or classify them as inconsistent
   iii. analyze systems algebraically and geometrically including any parametric solutions
   iv. compute sums, multiples and linear combinations of vectors, and matrix vector products
   v. determine if a set of vectors is linearly independent
   vi. analyze linear combinations and the span of a set of vectors algebraically and geometrically
   vii. link matrix equations, vector equations, and systems of equations
   viii. link algebra and geometry of the above, explore applications, and interpret statements