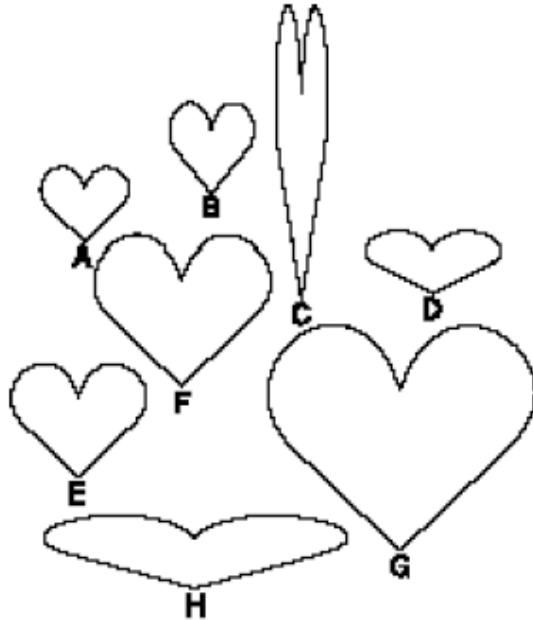


Hearts Problem¹

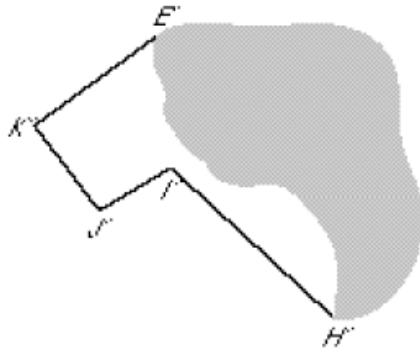
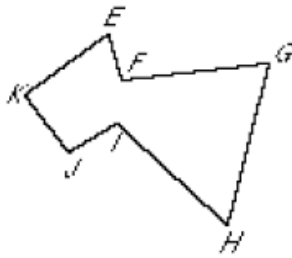
Derrick was making a card for his mom. He wanted to put hearts on it. He looked at the heart stickers and said, "Some of these don't look right!" What could Derrick have been noticing when he made the comment?



¹ All four of these tasks are part of a curriculum developed by the University of Hawaii Curriculum Research and Development Group. More information on its mathematics curriculum is available at: <http://manoa.hawaii.edu/crdg/>

Arrow Spill Problem

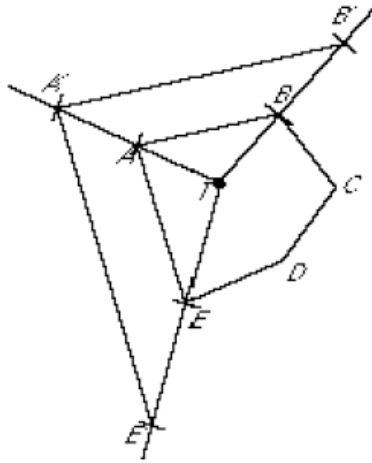
Kristin had to enlarge polygon $EFGHIJK$. She worked very hard, but just as she completed the enlargement, she spilled her fruit punch on her homework paper. Help Kristin complete the enlargement. Describe your method.



Sheri's Problem

Sheri found a good way to change the size of a figure by doing a dilation. She dilated pentagon $ABCDE$ 200% to pentagon $A'B'C'D'E'$.

- Explain what you think Sheri is doing to draw the dilation.
- Complete the dilation.
- What do you notice about the two pentagons?



Jeff's Problem

Jeff wanted to dilate a pentagon 75% using a center of dilation inside the figure. The drawing below shows how Jeff started working on the problem. Look at the drawing and think about what method Jeff is using.

- Complete the dilation using Jeff's method.
- Explain Jeff's method.

