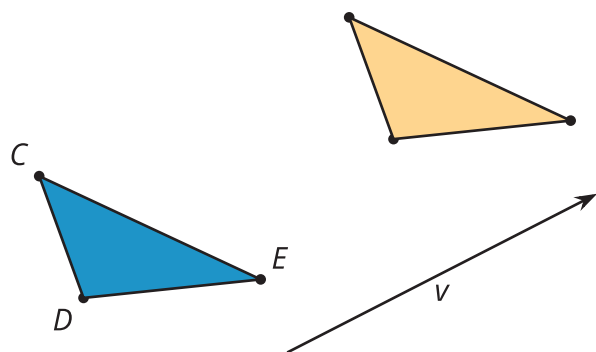


Unit 1 Lesson 12: Defining Translations

1 Notice and Wonder: Two Triangles and an Arrow (Warm up)

Student Task Statement

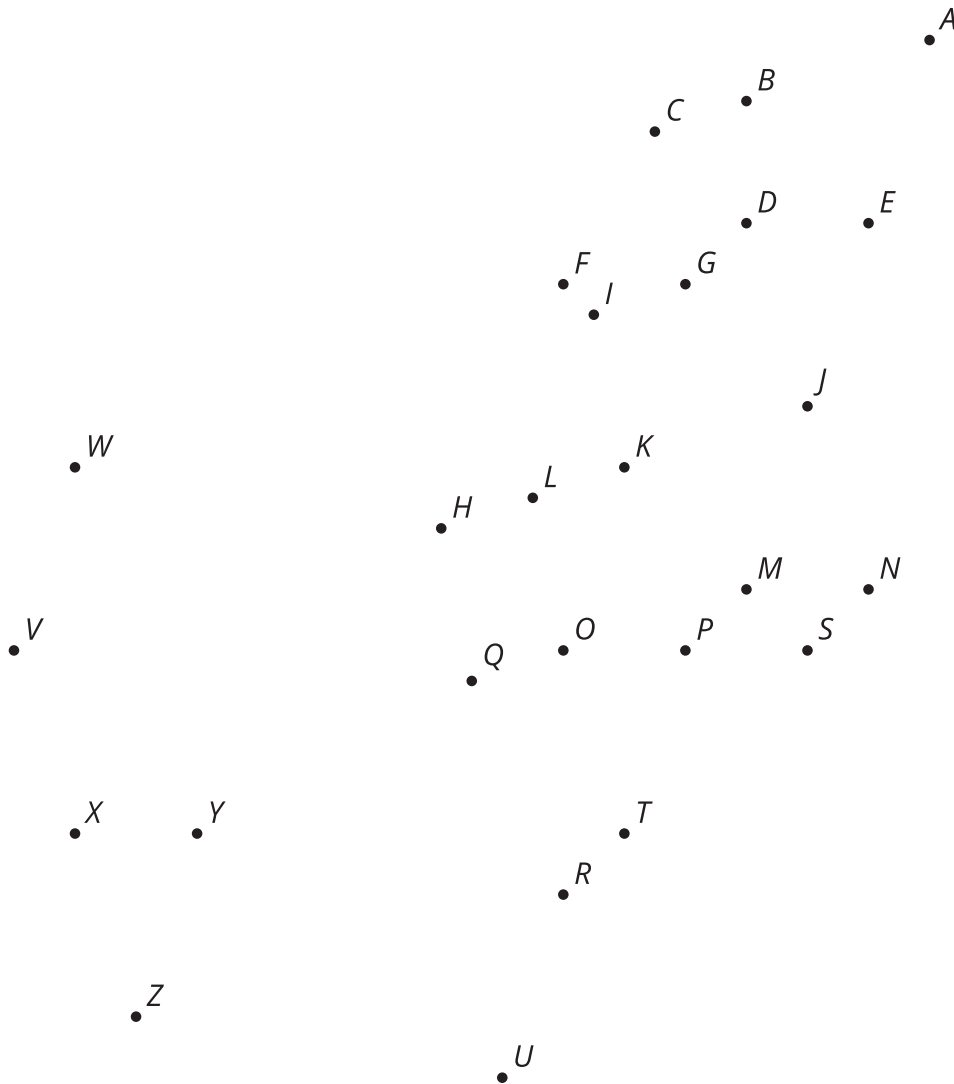
What do you notice? What do you wonder?



2 What's the Point: Translations

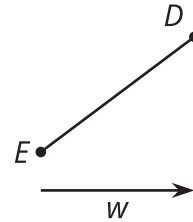
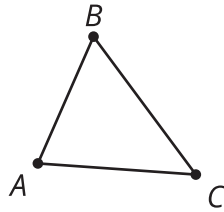
Student Task Statement

1. After a translation, the image of V is W . Find at least 3 other points that are taken to a labeled point by that translation.
2. Write at least 1 conjecture about translations.
3. In a new translation, the image of V is Z . Find at least 3 other points that are taken to a labeled point by the new translation.
4. Are your conjectures still true for the new translation?



3 Translating Triangles

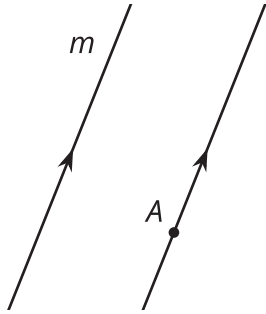
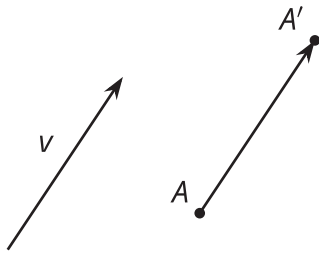
Student Task Statement



1. Translate triangle ABC by the **directed line segment** from A to C .
 - a. What is the relationship between line BC and line $B'C'$? Explain your reasoning.
 - b. How does the length of segment BC compare to the length of segment $B'C'$? Explain your reasoning.
2. Translate segment DE by directed line segment w . Label the new endpoints D' and E' .
 - a. Connect D to D' and E to E' .
 - b. What kind of shape did you draw? What properties does it have? Explain your reasoning.

Images for Activity Synthesis

Translate A by the directed line segment v .



$m \parallel m'$

