## Unit 1 Lesson 10: Rigid Transformations

### 1 Notice and Wonder: Transformed (Warm up)

#### Student Task Statement

What do you notice? What do you wonder?



### 2 What’s the Same?

#### Images for Launch



#### Student Task Statement



Draw each **rigid transformation** in a different color.

1. **Translate** figure $S$ along the line segment $v$ in the direction shown by the arrow. Color: \_\_\_\_\_\_\_\_\_\_\_\_\_
2. **Reflect** figure $S$ across line $y$. Color: \_\_\_\_\_\_\_\_\_\_\_\_\_
3. Reflect figure $S$ across line $m$. Color: \_\_\_\_\_\_\_\_\_\_\_\_\_
4. Translate figure $S$ along the line segment $w$ in the direction shown by the arrow. Reflect this **image** across line $y$. Color: \_\_\_\_\_\_\_\_\_\_\_\_\_
5. How are the images the same? How are they different?

### 3 Does Order Matter?

#### Student Task Statement

Here are 3 **congruent** L shapes on a grid.



1. Describe a sequence of transformations that will take Figure $A$ onto Figure $B$.
2. If you reverse the order of your sequence, will the reverse sequence still take $A$ onto $B$?
3. Describe a sequence of transformations that will take Figure $A$ onto Figure $C$.
4. If you reverse the order of your sequence, will the reverse sequence still take $A$ onto $C$?

#### Images for Activity Synthesis



$△EDC≅△E^{′}D^{′}C^{′}$





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