## Unit 2 Lesson 1: Congruent Parts, Part 1

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

#### Student Task Statement

What do you notice? What do you wonder?



### 2 If We Know This, Then We Know That...

#### Student Task Statement

Triangle $ABC$ is congruent to triangle $DEF$.

$△ABC≅△DEF$



1. Find a sequence of rigid motions that takes triangle $ABC$ to triangle $DEF$.
2. What is the image of segment $BC$ after that transformation?
3. Explain how you know those segments are congruent.
4. Justify that angle $ABC$ is congruent to angle $DEF$.

#### Activity Synthesis

$△DEF≅△PQR$ so $\overset{¯}{PQ}≅\overset{¯}{DE},\overset{¯}{PR}≅\overset{¯}{DF},\overset{¯}{QR}≅\overset{¯}{EF},$ $∠P≅∠D,∠Q≅∠E,∠R≅∠F$



### 3 Making Quadrilaterals

#### Student Task Statement

1. Draw a triangle.
2. Find the midpoint of the longest side of your triangle.
3. Rotate your triangle $180^{∘}$ using the midpoint of the longest side as the center of the rotation.
4. Label the **corresponding** parts and mark what must be congruent.
5. Make a conjecture and justify it.
	1. What type of quadrilateral have you formed?
	2. What is the definition of that quadrilateral type?
	3. Why must the quadrilateral you have fit the definition?



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