

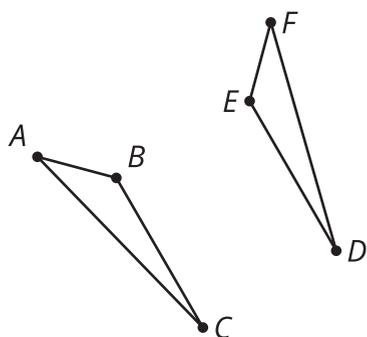
## Unit 2 Lesson 2: Congruent Parts, Part 2

### 1 Math Talk: Which Are Congruent? (Warm up)

#### Student Task Statement

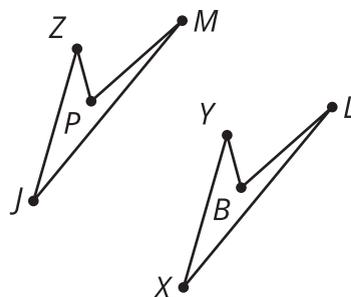
Each pair of figures is congruent. Decide whether each congruence statement is true or false.

$$\triangle ABC \cong \triangle FED$$



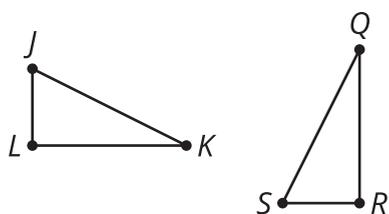
Triangle  $ABC$  is congruent to triangle  $FED$ .

$$PZJM \cong LYXB$$



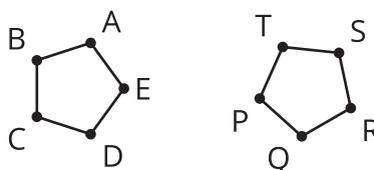
Quadrilateral  $PZJM$  is congruent to quadrilateral  $LYXB$ .

$$\triangle JKL \cong \triangle QRS$$



Triangle  $JKL$  is congruent to triangle  $QRS$ .

$$ABCDE \cong PQRST$$

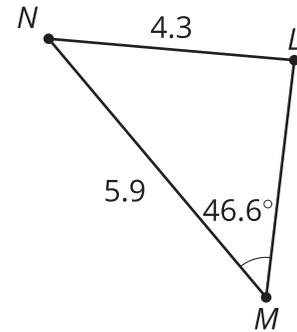
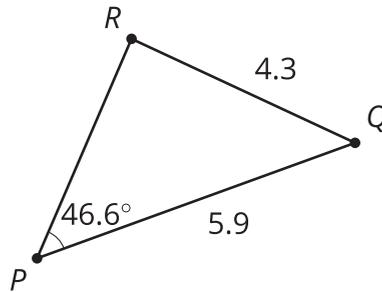
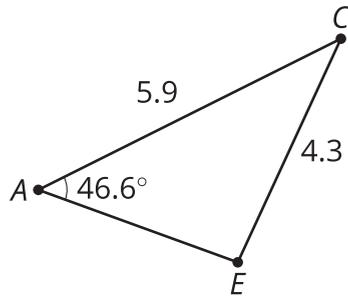


Pentagon  $ABCDE$  is congruent to pentagon  $PQRST$ .

## 2 Which Triangles Are Congruent?

### Student Task Statement

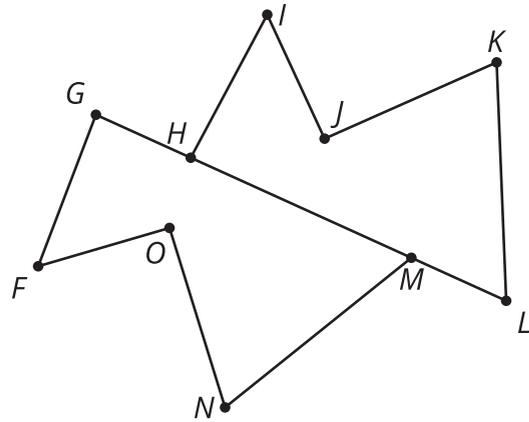
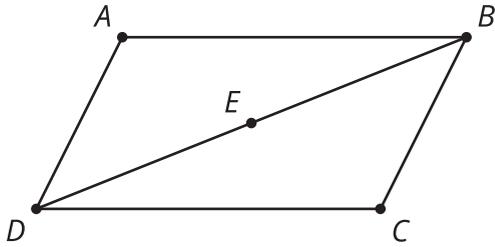
Here are 3 triangles.



1. Triangle  $PQR$  is congruent to which triangle? Explain your reasoning.
2. Show a sequence of rigid motions that takes triangle  $PQR$  to that triangle. Draw each step of the transformation.
3. Explain why there can't be a rigid motion from triangle  $PQR$  to the other triangle.

### 3 Are These Parts Congruent?

#### Student Task Statement



1. Triangle  $ABD$  is a rotation of triangle  $CDB$  around point  $E$  by  $180^\circ$ . Is angle  $ADB$  congruent to angle  $CDB$ ? If so, explain your reasoning. If not, which angle is  $ADB$  congruent to?
2. Polygon  $HIJKL$  is a reflection and translation of polygon  $GFONM$ . Is segment  $KJ$  congruent to segment  $NM$ ? If so, explain your reasoning. If not, which segment is  $NM$  congruent to?
3. Quadrilateral  $PQRS$  is a rotation of polygon  $VZYW$ . Is angle  $QRS$  congruent to angle  $ZYW$ ? If so, explain your reasoning. If not, which angle is  $QRS$  congruent to?

### Images for Activity Synthesis

