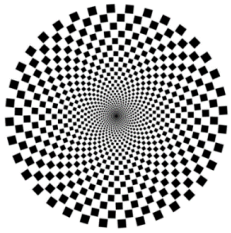
Geometry CC – Mr. Valentino
Unit 9 Lesson 9: Proving Squares

Name: _____
Date: _____ Per: _____

Aim: How can we prove quadrilaterals are squares?



How to **prove** that a quadrilateral is a **square**:

1) **First** show that the quadrilateral is a _____.

2) **Next** show that the quadrilateral is both a _____ and a _____.

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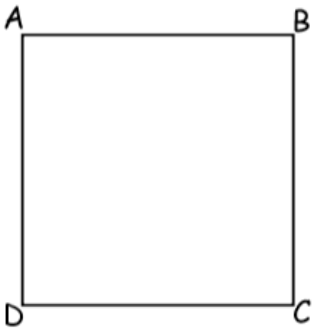
1) Given: ABCD is a parallelogram

$AB \perp BC$, $AB \cong BC$

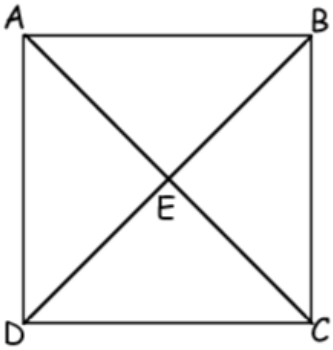
Prove: ABCD is a square



2) Given: $AE \cong EC$, $ED \cong EB$

$AB \perp BC$, $AB \cong BC$

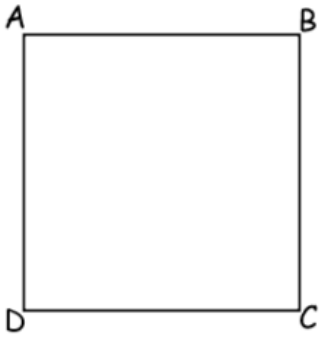
Prove: ABCD is a square



3) Given: $AB \cong CD$, $AB \parallel CD$

$\angle A$ is a right angle, $AB \cong BC$

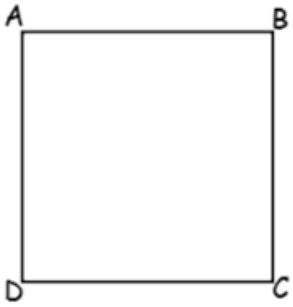
Prove: ABCD is a square



4) Given: $AB \cong CD$, $AD \cong CB$

$BC \perp DC$, $AB \cong BC$

Prove: ABCD is a square



5) Given: ΔABC is an isosceles right triangle with right angle ABC,
$\overline{MB}$ is a median in ΔABC,
$\overline{DM} \cong \overline{MB}$

Prove: $ABCD$ is a square.