

Geometry (G.CO.11)

Unit One B: Proving Quadrilaterals are Parallelograms #2 (HW42)

Name: _____

Date: _____ Period: _____

1. Fill in the blanks below using what you learned today about proving that a quadrilateral is a parallelogram.

a. Both _____ of _____ sides _____ → Parallelogram

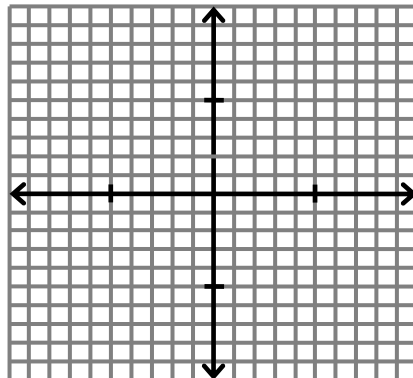
b. Both _____ of _____ sides _____ → Parallelogram

c. Both _____ of _____ angles _____ → Parallelogram

d. Diagonals _____ each other → Parallelogram

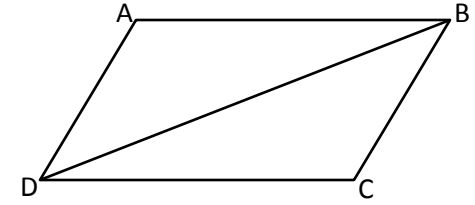
e. One pair of _____ sides _____ and _____ → Parallelogram

2. Is MATH a parallelogram if the vertices of the quadrilateral are M(-5, -3), A(0, -3), T(6, 2), H(1, 2)? If yes, justify your answer with both mathematical evidence (think slopes and/or distances) and a reason from #1.



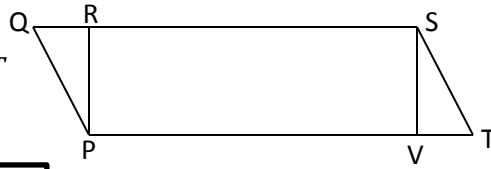
3. Given: $\triangle ABD \cong \triangle CDB$
Prove: ABCD is a parallelogram

Hint: There are multiple ways to do this so just think about CPCTC.



Statements	Reasons

4. Given: $\triangle PQR \cong \triangle STV$; $\angle RPT \cong \angle SVT$
Prove: PRSV is a parallelogram



Hint: Think about which converse from #1 would be the best to use before you start.

Statements	Reasons