

Parallelograms Proof Practice

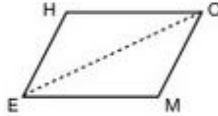
1.

Show Me!

Given: Parallelogram HOME

Prove: $\overline{HO} \cong \overline{ME}$; $\overline{OM} \cong \overline{HE}$

Proof:



Statements	Reasons
1.	1. Given
2.	2. Definition of a parallelogram
3. Draw \overline{EO}	3.
4.	4. Alternate Interior Angles Are Congruent (AIAC).
5.	5. Reflexive Property
6. $\triangle HOE \cong \triangle MEO$	6.
7. $\overline{HO} \cong \overline{ME}$; $\overline{OM} \cong \overline{HE}$	7.

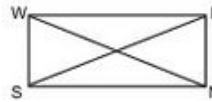
2.

Show Me!

Given: $\square WINS$ is a rectangle with diagonals

\overline{WN} and \overline{SI} .

Prove: $\overline{WN} \cong \overline{SI}$

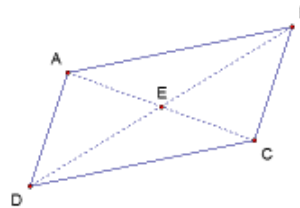


Statements	Reasons
1.	1. Given
2. $\overline{WS} \cong \overline{IN}$	2.
3. $\angle WSN$ and $\angle INS$ are right angles.	3.
4.	4. All right angles are congruent.
5. $\overline{SN} \cong \overline{NS}$	5.
6.	6. SAS Congruence Postulate
7. $\overline{WN} \cong \overline{SI}$	7.

3.

Given: $ABCD$ is a parallelogram.

Prove: \overline{AC} and \overline{BD} bisect each other.

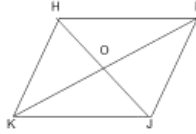


Statement	Justification

Parallelograms Proof Practice

4.

Given: $HIJK$ is a parallelogram
 $\triangle HOI \cong \triangle JOI$
 Prove: $HIJK$ is a Rhombus

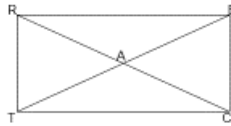


Statements

Reasons

5.

Given: $RECT$ is a Rectangle
 Prove: $\triangle ART \cong \triangle ACE$

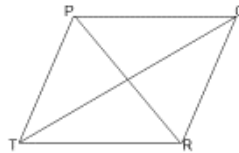


Statements

Reasons

6.

Given: $PQRT$ is a Rhombus
 Prove: PR bisects $\angle TPQ$ and $\angle QRT$,
 and QT bisects $\angle PTR$ and $\angle PQR$



Statements

Reasons