

Name: Key Date: _____

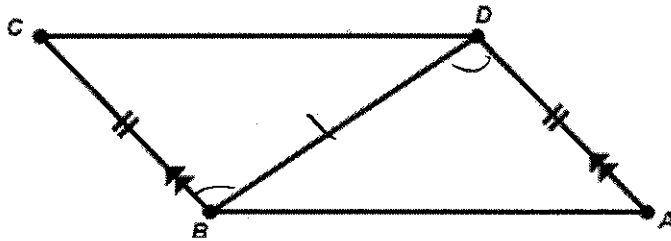
More Proofs

Fill in the missing statements or reasons from the bank:

Problem 1:

Given: $\overline{CB} \cong \overline{AD}$ and $\overline{CB} \parallel \overline{AD}$

Prove: $\triangle BCD \cong \triangle DAB$



Statements	Reasons
1. $\overline{CB} \cong \overline{AD}$	Given
2. $\overline{CB} \parallel \overline{AD}$	Given
3. $\angle CBD \cong \angle ADB$	Alt. Int. \angle s \cong
4. $\overline{BD} \cong \overline{BD}$	Reflexive Property of \cong
5. $\triangle BCD \cong \triangle DAB$	SAS

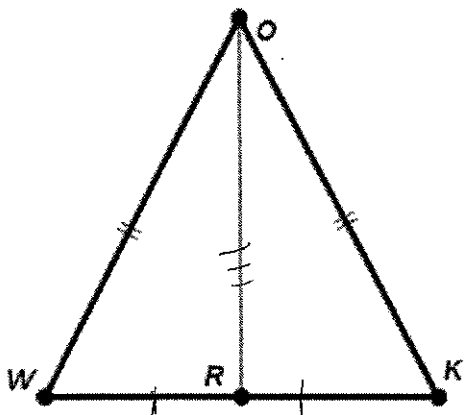
Corresponding angles are congruent	SAS	AAS
Given	SSS	ASA
Transitive Property of Congruence	Reflexive Property of Congruence	
Alternate interior angles are congruent	Definition of an Angle Bisector	
Right Angle Congruence Theorem	Definition of a Midpoint	

Problem 2:

Given: $\triangle WOK$ is isosceles;

Point R is the midpoint of \overline{WK}

Prove: $\triangle OWR \cong \triangle OKR$



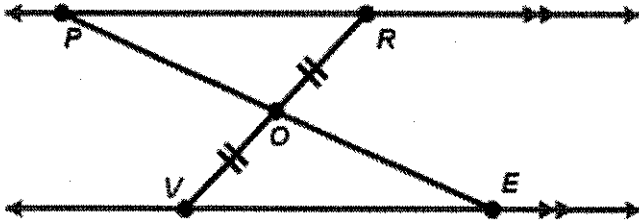
Statements	Reasons
1. $\triangle WOK$ is isosceles	Given
2. $\overline{WO} \cong \overline{KO}$	Defn. of Isosc. \triangle
3. R is the midpoint of \overline{WK}	Given
4. $\overline{WR} \cong \overline{KR}$	Defn. of a Midpt.
5. $\overline{OR} \cong \overline{OR}$	Reflexive Prop. of \cong
6. $\triangle WRO \cong \triangle KRO$	SSS
7. $\angle OWR \cong \angle OKR$	CPCTC

Definition of a Midpoint	SAS	AAS	HL
Given	SSS	ASA	
Transitive Property of Congruence	Reflexive Property of Congruence		
CPCTC	Definition of an Isosceles Triangle		
Right Angle Congruence Theorem	Congruent Base Angles Theorem		
Definition of an Angle Bisector			

Problem 3:

Given: $\overline{VO} \cong \overline{RO}$ and $\overline{PR} \parallel \overline{VE}$

Prove: $\triangle PRO \cong \triangle EVO$



Statements	Reasons
1. $\overline{VO} \cong \overline{RO}$	Given
2. $\overline{PR} \parallel \overline{VE}$	Given
3. $\angle PRO \cong \angle EVO$	Alt. Int. $\angle s \cong$
4. $\angle RPO \cong \angle VEO$	Alt. Int. $\angle s \cong$
5. $\triangle PRO \cong \triangle EVO$	AAS

OR
could use
 $\angle POR \cong \angle EOV$
by vertical
angles \cong

Alternate Interior Angles are Congruent	SAS	AAS
Definition of a Midpoint	SSS	ASA
Transitive Property of Congruence	Reflexive Property of Congruence	
Vertical Angles are Congruent	Corresponding Angles are Congruent	
Definition of an Angle Bisector		
$\overline{PO} \cong \overline{EO}$	$\overline{VO} \cong \overline{RO}$	$\overline{PR} \cong \overline{EV}$
$\angle PRO \cong \angle EVO$	$\angle RPO \cong \angle VEO$	$\angle POR \cong \angle EOV$

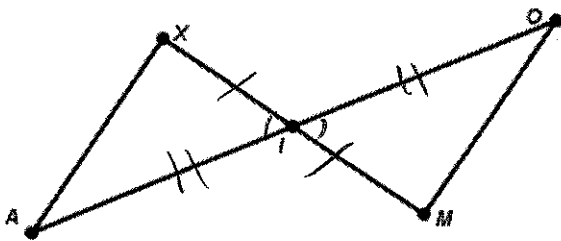
Fill in the missing statements or reasons:

Problem 4:

Given: Point I is the midpoint of \overline{XM}

Point I is the midpoint of \overline{AO}

Prove: $\triangle AXI \cong \triangle OMI$



Statements	Reasons
1. I is the midpoint of \overline{XM}	Given
2. $\overline{XI} \cong \overline{MI}$	Definition of Midpoint
3. I is the midpoint of \overline{AO}	Given
4. $\overline{AI} \cong \overline{OI}$	Defn. of Midpt.
5. $\angle AIX \cong \angle OIM$	Vertical $\angle s \cong$
6. $\triangle AXI \cong \triangle OMI$	SAS