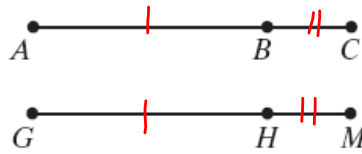


DO NOW

Given: $AB = GH$ and $BC = HM$

Prove: $AC = GM$

$$\begin{array}{r} + AB = GH \\ BC = HM \\ \hline \end{array}$$

**Statements****Reasons**

1. $AB = GH, BC = HM$

1. Given.

2. $AB + BC = GH + HM$

2. Addition property

3. $AC = GM$

3. Partition postulate
(whole is = to sum of
its parts)

Oct 19-10:08 AM

Supplementary and Complementary Angles



Supplements of congruent angles are congruent

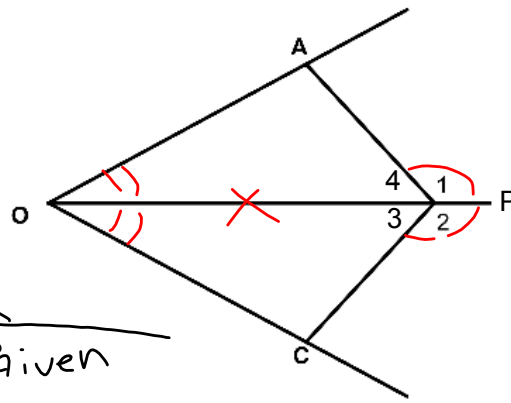


Complements of congruent angles are congruent

Nov 13-9:54 AM

Given: $\angle 1 \cong \angle 2$

Prove: $\angle 3 \cong \angle 4$

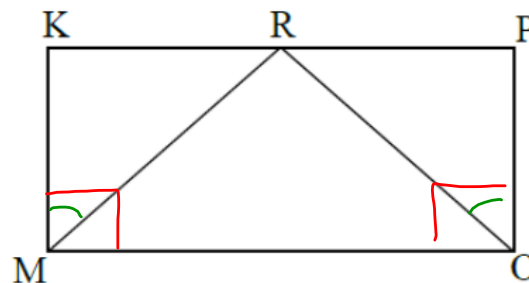


S	R
1) $\angle 1 \cong \angle 2$	1) Given
2) $\angle 3 \cong \angle 4$	2) Supplements of \cong angles are \cong

Nov 13-9:54 AM

Given: $\overline{KM} \perp \overline{MO}$
 $\overline{PO} \perp \overline{MO}$
 $\angle KMR \cong \angle POR$

Prove: $\angle ROM \cong \angle RMO$



S	R
1) $\overline{KM} \perp \overline{MO}, \overline{PO} \perp \overline{MO}$	1) Given
* $\angle KMR \cong \angle POR$	
2) $\angle KMO + \angle POM$ are right \angle 's	2) \perp lines form right \angle 's
* 3) $\angle KMO \cong \angle POM$	3) All right \angle 's are \cong
4) $\angle RMO \cong \angle ROM$	4) Complements of \cong angles are \cong

Nov 13-10:00 AM

Given: $\angle A \cong \angle D$
 $\overline{AE} \cong \overline{CD}$
 $\angle AEF \cong \angle BCD$

Prove: $\triangle ABC \cong \triangle DFE$

S	R
1) $\angle A \cong \angle D$ $\overline{AE} \cong \overline{CD}$ $\angle AEF \cong \angle BCD$	1) Given
2) $\overline{EC} \cong \overline{EC}$	2) Reflexive property
3) $\overline{AE} + \overline{EC} \cong \overline{AC}$ $\overline{CD} + \overline{EC} \cong \overline{DE}$	3) Addition property
4) $\overline{AC} \cong \overline{DE}$	4) Partition postulate
5) $\angle BCA \cong \angle FED$	5) Supplements of \cong \angle 's are \cong
6) $\triangle ABC \cong \triangle DFE$	6) ASA

~~ASA~~

Nov 13-10:02 AM

Given: $\angle C \cong \angle D$
 $\angle 1 \cong \angle 2$
M is the midpoint of \overline{DC}

Prove: $\overline{CB} \cong \overline{DA}$

S	R
1) $\angle C \cong \angle D, \angle 1 \cong \angle 2$ M is midpoint of \overline{DC}	1) Given
2) $\overline{CM} \cong \overline{DM}$	2) Midpoint creates 2 \cong segments
3) $\angle 3 \cong \angle 3$	3) Reflexive property
4) $\angle 1 + \angle 3 \cong \angle 3 + \angle 2$	4) Addition property
5) $\angle CMB \cong \angle DMA$	5) Partition postulate
6) $\triangle CBM \cong \triangle DAM$	6) ASA
7) $\overline{CB} \cong \overline{DA}$	7) CPCTC

~~ASA~~

Nov 13-10:02 AM