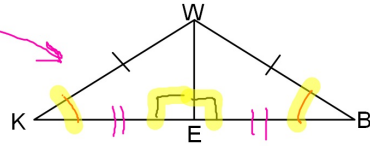


Geometry Bellwork Friday, December 6, 2013

For 1 and 2, Each diagram shows two congruent triangles. Fill in the blanks and give a reason for each statement then write a congruence statement for each pair of triangles.

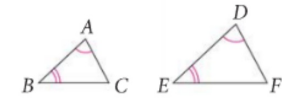
1. \overline{WE} is a \perp bisector of \overline{KB} & $\angle K \cong \angle B$



1. $\angle K \cong \angle B$ Reason: Given
 2. $\angle KEW \cong \angle BEW$ Reason: def \perp or all RT \angle 's \cong
 3. $\angle KWE \cong \angle BWE$ Reason: 2 \angle 's in 1 $\Delta \cong$ 2 \angle 's another Δ
 4. $\overline{KW} \cong \overline{BW}$ Reason: Given
 5. $\overline{KE} \cong \overline{BE}$ Reason: Def of bisect
 6. $\overline{WE} \cong \overline{WE}$ Reason: Reflexive Prop
- $\triangle WEK \cong \triangle WEB$

Theorem 4-1

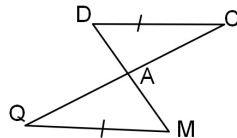
If two angles of one triangle are congruent to two angles of another triangle, then the third angles are congruent.



$\angle C \cong \angle F$

2. $\overline{DQ} \parallel \overline{MQ}$ \overline{CQ} and \overline{DM} bisect each other.

ALT INT SSE
SSI corresp
ALT ext.



1. $\angle MDC \cong \angle DMQ$ Reason: Alt int \angle 's
2. $\angle DCQ \cong \angle MQC$ Reason: " " "
3. $\angle QAM \cong \angle CAD$ Reason: Vert \angle 's \cong
4. $\overline{DC} \cong \overline{MQ}$ Reason: Given
5. $\overline{DA} \cong \overline{MA}$ Reason: Def of bisect
6. $\overline{QA} \cong \overline{CA}$ Reason: " "

$\triangle QAM \cong \triangle CAD$

Given: $\triangle JWC \cong \triangle EKG$ $m\angle W = 62^\circ$ $m\angle E = 70^\circ$

The perimeter of $\triangle EKG = 33$

$KG = 13$ $JC = 11$

Find the measure of the remaining angles and the lengths of the remaining sides of the two triangles.

$m\angle J = 70$ $m\angle C = 48$

$m\angle K = 62$ $m\angle G = 48$

$JW = 9$ $WC = 13$

$EK = 9$ $EG = 11$

