

Name: _____

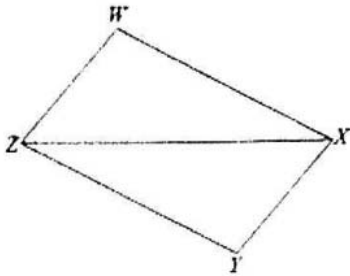
Date: _____

Geometry CC - Mr. Valentine EVEN MORE PROOFS! Addition and Subtraction Postulate..

13) Given: $\overline{ZW} \cong \overline{YX}$,

$$\overline{WX} \cong \overline{ZY}$$

Prove: $\triangle ZWX \cong \triangle XYZ$



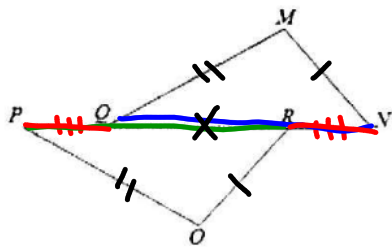
Statement	Reason

14) Given: $\overline{MN} \cong \overline{RO}$,

$$\overline{MQ} \cong \overline{PO},$$

$$\overline{PQ} \cong \overline{RN}$$

Prove: $\triangle POR \cong \triangle QMN$

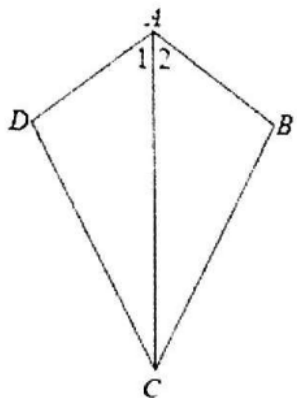


Statement	Reason
★ ① $\overline{MN} \cong \overline{RO}$	① Given
★ ② $\overline{MQ} \cong \overline{PO}$	② Given
③ $\overline{PQ} \cong \overline{RN}$	③ Given
④ $\overline{QR} \cong \overline{QR}$	④ Reflexive Prop.
★ ⑤ $\overline{PR} \cong \overline{NQ}$	⑤ Addition Postulate
⑥ $\triangle POR \cong \triangle QMN$	⑥ SSS \cong SSS

21) Given: \overline{AC} bisects $\angle DCB$,

$$\angle 1 \cong \angle 2$$

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



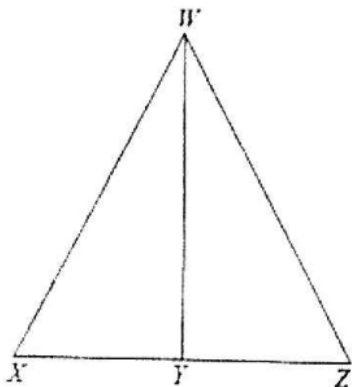
Statement	Reason

22) Given: $\triangle XWZ$ is isosceles

with vertex W ,

$$\overline{XW} \cong \overline{ZW}$$

Prove: $\angle XWY \cong \angle ZWY$



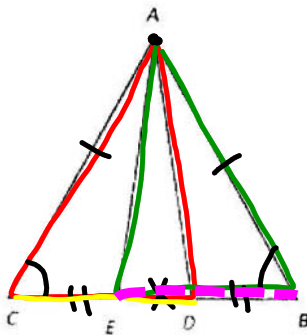
Statement	Reason

23) Given: $\triangle CAB$ is isosceles

with vertex A ,

$\rightarrow \overline{CE} \cong \overline{DB}$

Prove: $\triangle ACD \cong \triangle AEB$



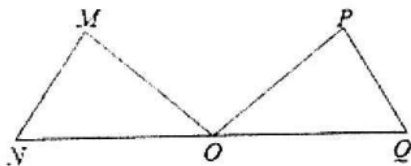
Statement	Reason
① $\triangle CAB$ is isosceles with vertex A	① Given
★ ② $\overline{AC} \cong \overline{AB}$	② An isosceles \triangle has 2 \cong sides
★ ③ $\angle C \cong \angle B$	③ Base \angle 's of an isosceles \triangle are \cong
④ $\overline{CE} \cong \overline{DB}$	④ Given
⑤ $\overline{ED} \cong \overline{ED}$	⑤ Reflexive Prop.
⑥ $\overline{CD} \cong \overline{BE}$	⑥ Addition Post.
⑦ $\triangle ACD \cong \triangle AEB$	⑦ SAS \cong SAS

24) Given: $\angle N \cong \angle Q$,

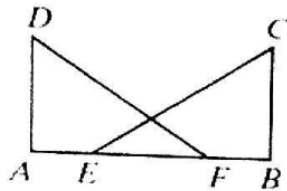
$\angle MON \cong \angle POQ$,

\overline{NQ} is bisected by O .

Prove: $\triangle MON \cong \triangle POQ$

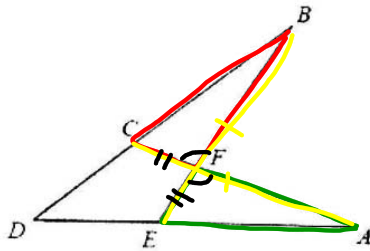


25) Given: $\overline{BC} \cong \overline{AD}$
 $\angle DAF \cong \angle CBE$
 $\angle DFB \cong \angle CEA$
 Prove: $\triangle ADF \cong \triangle BCE$



Statement	Reason

26) Given: $\overline{AC} \cong \overline{BE}$
 $\overline{FC} \cong \overline{FE}$
 Prove: $\triangle BFC \cong \triangle AFE$



Statement	Reason
① $\overline{AC} \cong \overline{BE}$	① Given
★ ② $\overline{FC} \cong \overline{FE}$	② Given
★ ③ $\overline{BF} \cong \overline{AF}$	③ Subtraction postulate
★ ④ $\angle CFB \cong \angle EFA$	④ Vertical \angle 's are \cong
⑤ $\triangle BFC \cong \triangle AFE$	⑤ SAS \cong SAS