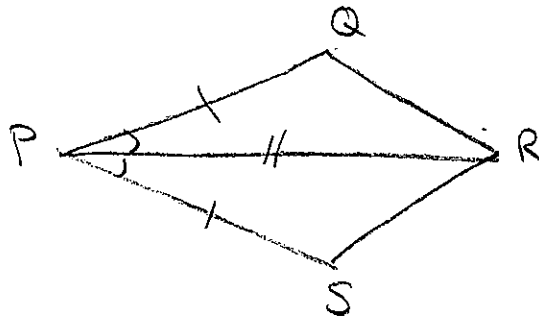


4.3

Pg 129

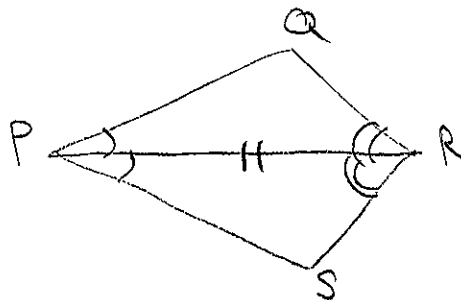
①



1. \overleftrightarrow{PR} bisects $\angle QPS$
2. $\angle QPR \cong \angle SPR$
3. $\overline{PQ} \cong \overline{PS}$
4. $\overline{PR} \cong \overline{PR}$
5. $\triangle PQR \cong \triangle PSR$
6. $\angle Q \cong \angle S$

1. Given
2. def. \angle bisector
3. Given
4. Reflexive
5. SAS
6. CPCTC

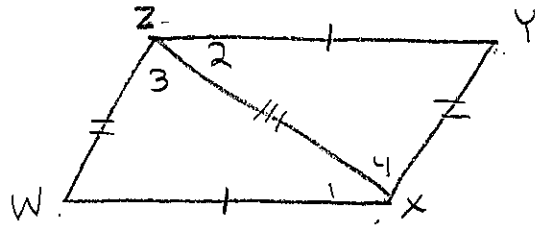
②



1. \overleftrightarrow{PR} bisects $\angle QPS$
2. $\angle QPR \cong \angle SPR$
3. $\overline{PR} \cong \overline{PR}$
4. $\angle QRP \cong \angle SRP$
5. $\triangle PQR \cong \triangle PSR$
6. $\overline{RQ} \cong \overline{RS}$

1. Given
2. def. \angle bisector
3. Reflexive
4. def. \angle bisector
5. ASA
6. CPCTC

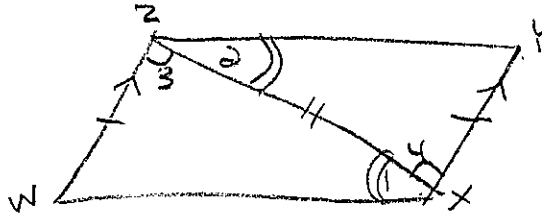
3.



1. $\overline{WX} \cong \overline{YZ}$
 $\overline{ZW} \cong \overline{XY}$
2. $\overline{ZX} \cong \overline{ZX}$
3. $\triangle XWZ \cong \triangle ZYX$
4. $\angle 1 \cong \angle 2$
5. $\overline{WX} \parallel \overline{ZY}$

1. Given
2. Reflexive
3. SSS
4. CPCTC
5. Alt. int. $\angle s \cong \rightarrow \parallel$ lines

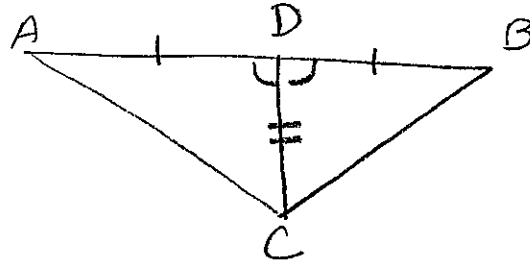
4.



1. $\overline{ZW} \parallel \overline{XY}$; $\overline{ZW} \cong \overline{XY}$
2. $\overline{ZX} \cong \overline{ZX}$
3. $\angle 3 \cong \angle 4$
4. $\triangle WZX \cong \triangle YXZ$
5. $\angle 2 \cong \angle 1$
6. $\overline{ZY} \parallel \overline{WX}$

1. Given
2. Reflexive
3. \parallel lines \rightarrow alt. int. $\angle s \cong$
4. SAS
5. CPCTC
6. Alt. int. $\angle s \cong \rightarrow \parallel$ lines

5

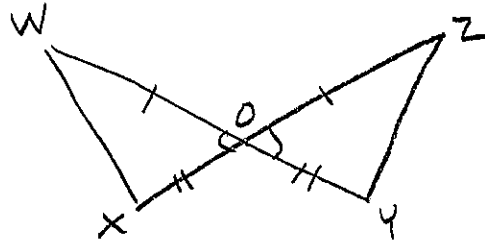


1. $CD \perp AB$
D is the mdpt. of \overline{AB}
2. $\angle ADC \cong \angle BDC$
3. $\overline{AD} \cong \overline{DB}$
4. $\overline{DC} \cong \overline{DC}$
5. $\triangle ADC \cong \triangle BDC$
6. $\overline{CA} \cong \overline{CB}$

1. Given

2. \perp lines $\rightarrow \cong$ adj. \angle 's
3. def. mdpt.
4. Reflexive
5. SAS
6. CPCTC

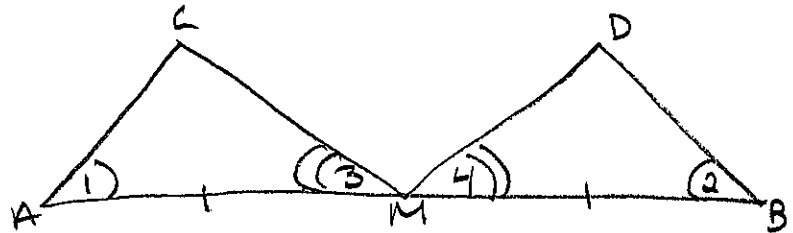
(3)



1. $\overline{WO} \cong \overline{ZO}$; $\overline{XO} \cong \overline{YO}$
2. $\angle WOX \cong \angle ZOY$
3. $\triangle WOX \cong \triangle ZOY$
4. $\angle W \cong \angle Z$

1. Given
2. Vert. \angle s \cong
3. SAS
4. CPCTC

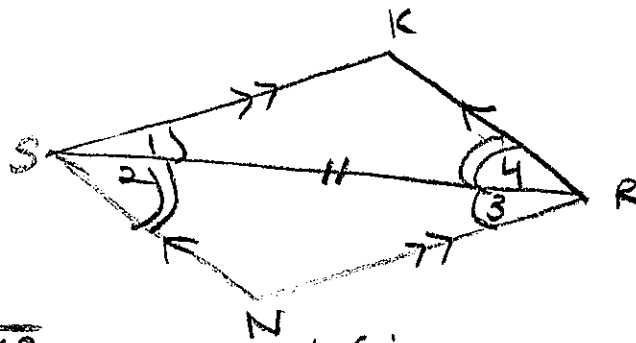
(4)



1. M is midpt. of \overline{AB}
2. $\angle 1 \cong \angle 2$; $\angle 3 \cong \angle 4$
3. $\triangle ACM \cong \triangle BDM$
4. $\overline{AC} \cong \overline{BD}$

1. Given
2. def. midpt.
3. ASA
4. CPCTC

5



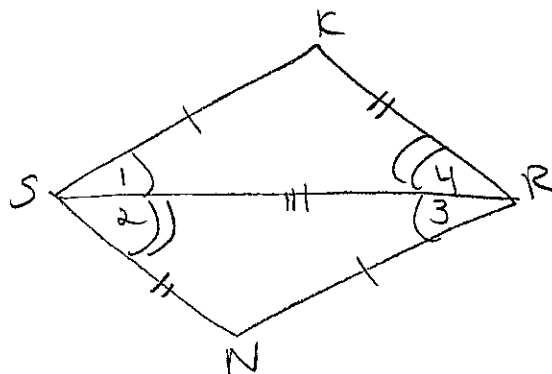
1. $\overline{SK} \parallel \overline{NR}$; $\overline{SN} \parallel \overline{KR}$
2. $\angle 4 \cong \angle 2$; $\angle 1 \cong \angle 3$
3. $\overline{SR} \cong \overline{SR}$
4. $\triangle SKR \cong \triangle RNS$
5. $\overline{SK} \cong \overline{NR}$; $\overline{SN} \cong \overline{KR}$

1. Given
2. \parallel lines \rightarrow Alt. int. $\angle s \cong$
3. Reflexive
4. ASA
5. CPCTC

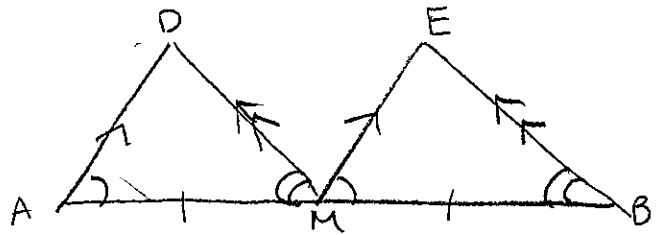
6

1. $\overline{SK} \cong \overline{NR}$; $\overline{SN} \cong \overline{KR}$
2. $\overline{SR} \cong \overline{SR}$
3. $\triangle SKR \cong \triangle RNS$
4. $\angle 1 \cong \angle 3$; $\angle 4 \cong \angle 2$
5. $\overline{SK} \parallel \overline{NR}$; $\overline{SN} \parallel \overline{KR}$

1. Given
2. Reflexive
3. SSS
4. CPCTC
5. Alt. int. $\angle s \cong \rightarrow \parallel$ lines



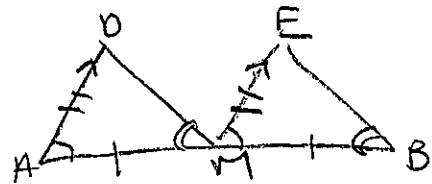
7



1. $\overline{AD} \parallel \overline{ME}$; $\overline{MD} \parallel \overline{BE}$
M is mdpt. of \overline{AB}
2. $\overline{AM} \cong \overline{MB}$
3. $\angle DAM \cong \angle EMB$
 $\angle DMA \cong \angle EBM$
4. $\triangle ADM \cong \triangle MEB$
5. $\overline{MD} \cong \overline{BE}$

1. Given
2. Def. mdpt.
3. \parallel lines \rightarrow Corr. \angle 's \cong
4. ASA
5. CPCTC

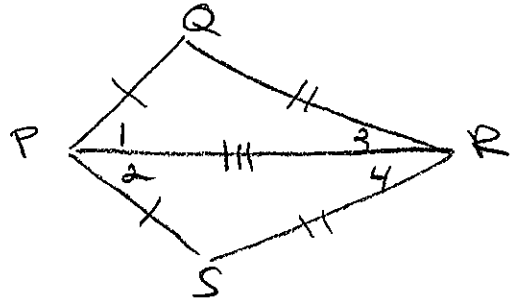
8



1. M is mdpt. of \overline{AB}
 $\overline{AD} \cong \overline{ME}$; $\overline{AD} \parallel \overline{ME}$
2. $\overline{AM} \cong \overline{MB}$
3. $\angle A \cong \angle EMB$
4. $\triangle ADM \cong \triangle MEB$
5. $\angle DMA \cong \angle B$
6. $\overline{DM} \parallel \overline{EB}$

1. Given
2. Def. Mdpt.
3. \parallel lines \rightarrow Corr. \angle 's \cong
4. SAS
5. CPCTC
6. Corr. \angle 's $\cong \rightarrow \parallel$ lines

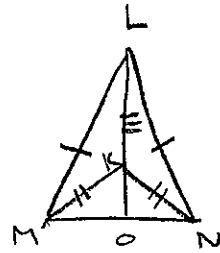
9



1. $\overline{PQ} \cong \overline{PS}$; $\overline{QR} \cong \overline{SR}$
2. $\overline{PR} \cong \overline{PR}$
3. $\triangle PQR \cong \triangle PSR$
4. $\angle 3 \cong \angle 4$

1. Given
2. Reflexive
3. SSS
4. CPCTC

10

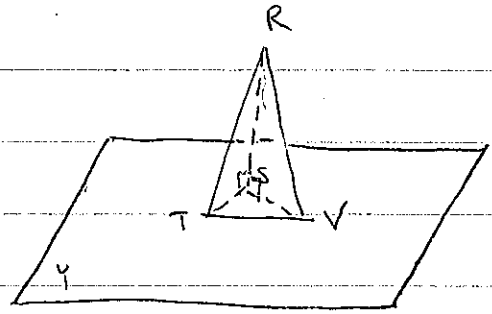


1. $\overline{LM} \cong \overline{LN}$; $\overline{KM} \cong \overline{KN}$
2. $\overline{LK} \cong \overline{LK}$
3. $\triangle LMK \cong \triangle LNK$
4. $\angle MLK \cong \angle NLK$
5. \overrightarrow{LO} bisects $\angle MLN$

1. Given
2. Reflexive
3. SSS
4. CPCTC
5. def. bisector

(13)

Given: $\overline{RS} \perp$ plane γ
 $\angle TRS \cong \angle VRS$

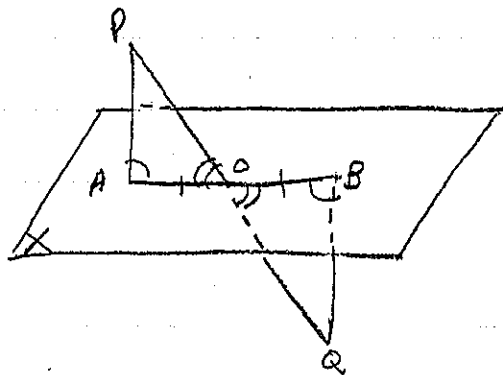


Prove: $\triangle RTV$ is isosceles

Statements	Reasons
1. $\overline{RS} \perp$ plane γ	1. Given
2. $\angle RST$ is rt. \angle $\angle RSV$ is rt. \angle	1b. def. of line \perp to plane (pg. 128) 2. def. \perp
3. $m\angle RST = 90^\circ$; $m\angle RSV = 90^\circ$	3. def. rt. \angle
4. $m\angle RST = m\angle RSV$	4. Subst.
④ 5. $\angle RST \cong \angle RSV$	5. def. \cong
④ 6. $\angle TRS \cong \angle VRS$	6. Given
⑤ 7. $\overline{RS} \cong \overline{RS}$	7. Reflexive
8. $\triangle RST \cong \triangle RSV$	8. ASA
9. $\overline{RT} \cong \overline{RV}$	9. CPCTC
10. $\triangle RTV$ is isosc.	10. def. isosc. \triangle

(14)

Given: $\overline{PA} \perp$ plane X
 $\overline{QB} \perp$ plane X
O is mdpt. of \overline{AB}



Prove: O is mdpt. of \overline{PQ}

Statements	Reasons
1. $\overline{PA} \perp$ Plane X; $\overline{QB} \perp$ plane X	1. Given
2. $\overline{PA} \perp \overline{AB}$; $\overline{QB} \perp \overline{AB}$	2. Def. of line \perp to plane (pg 128)
3. $\angle PAB + \angle QBA$ rt. \angle^s	3. def. \perp
4. $m\angle PAB = 90$; $m\angle QBA = 90$	4. def. rt. \angle
5. $m\angle PAB = m\angle QBA$	5. Subst.
④ 6. $\angle PAB \cong \angle QBA$	6. def. \cong
7. O is mdpt. of \overline{AB}	7. Given
⑤ 8. $\overline{AO} \cong \overline{OB}$	8. def. mdpt.
④ 9. $\angle POA \cong \angle QOB$	9. Vert. $\angle^s \cong$
10. $\triangle AOP \cong \triangle BOQ$	10. ASA
11. $\overline{PO} \cong \overline{OQ}$	11. CPCTC
12. O is mdpt. of \overline{PQ}	12. def. mdpt.