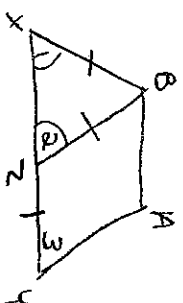


5,4

(28)

Given: $\square ABZY$; $ZY \cong BX$
 $\angle 1 \cong \angle 2$

Prove: $ABZY$ is Rhombus

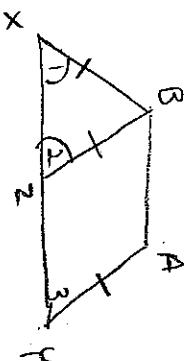


1. $\square ABZY$; $ZY \cong BX$; $\angle 1 \cong \angle 2$
2. $\overline{BX} \cong \overline{BZ}$
3. $\overline{ZY} \cong \overline{BZ}$
4. $ABZY$ is Rhombus

1. Given
2. Converse of Isosc. Δ Thm.
3. Transitive
4. 2 consec. sides of $\square \cong \rightarrow$ Rhombus

(29)

Given: $\square ABZY$; $\overline{AY} \cong \overline{BX}$
 Prove: $\angle 1 \cong \angle 2$ & $\angle 1 \cong \angle 3$



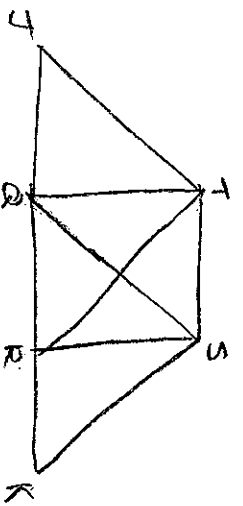
1. $\square ABZY$; $\overline{AY} \cong \overline{BX}$
2. $\overline{BZ} \cong \overline{AY}$
3. $\overline{BX} \cong \overline{BZ}$
- * 4. $\angle 1 \cong \angle 2$
5. $\overline{BZ} \parallel \overline{AY}$
6. $\angle 2 \cong \angle 3$
- * 7. $\angle 1 \cong \angle 3$

1. Given.
2. Opp. sides $\square \cong$
3. Transitive
4. Isosc. Δ Thm.
5. def. \square
6. \parallel lines \rightarrow alt. \angle 's \cong
7. Transitive

30

Given: Rect. QRST
 $\square Rkst$

Prove: $\triangle QSk$ is isosc.



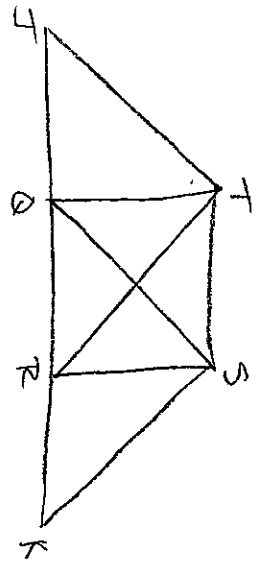
1. QRST is rectangle
2. $\overline{QS} \cong \overline{RT}$
3. $\square Rkst$
4. $\overline{RT} \cong \overline{ST}$
5. $\overline{QS} \cong \overline{SK}$
6. $\triangle QSk$ is isosc.

1. Given
2. diag. of rect. \cong
3. Given
4. opp. sides $\square \cong$
5. Transitive
6. def. isosc.

31

Given: Rect. QRST
 $\square Rkst$; $\square JOST$

Prove: $\overline{JT} \cong \overline{KS}$

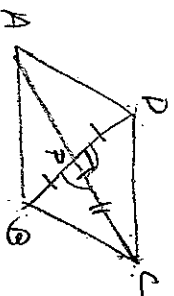


1. Rect. QRST
2. $\overline{RT} \cong \overline{QS}$
3. $\square Rkst$; $\square JOST$
4. $\overline{OS} \cong \overline{JT}$; $\overline{RT} \cong \overline{KS}$
5. $\overline{JT} \cong \overline{KS}$

1. Given
2. diag. rect. \cong
3. Given
4. opp. sides $\square \cong$
5. Transitive

(34)

Given: $\overline{AC} \perp \overline{DB}$; $\square ABCD$
Prove: $ABCD$ is rhombus

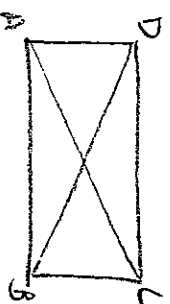


- $\overline{AC} \perp \overline{DB}$; $\square ABCD$
1. $\overline{AC} \perp \overline{DB}$; $\square ABCD$
 2. $\angle CPD \cong \angle CPB$
 3. $\overline{PC} \cong \overline{PC}$
 4. \overline{CA} bisects \overline{DB}
 5. P is mdpt. of \overline{DB}
 6. $\overline{DP} \cong \overline{PB}$
 7. $\triangle DPC \cong \triangle BPC$
 8. $\overline{CD} \cong \overline{CB}$
 9. $ABCD$ is rhombus

1. Given
2. \perp lines $\rightarrow \cong$ adj. \angle s
3. Reflexive
4. diag. of \square bisect each other
5. def. bisect
6. def. mdpt.
7. SAS
8. CPCTC
9. 2 consec. sides of $\square \cong \rightarrow$ Rhombus

(35)

Given: $\square ABCD$; $\overline{AC} \cong \overline{DB}$
Prove: $ABCD$ is rect.



1. $\square ABCD$; $\overline{AC} \cong \overline{DB}$
2. $\overline{AD} \cong \overline{AD}$
3. $\overline{DC} \cong \overline{DC}$
4. $\triangle ADC \cong \triangle DAB$
5. $\angle CDA \cong \angle BAD$
6. $\overline{DC} \parallel \overline{AB}$
7. $\angle CDA$ is supp. to $\angle BAD$
8. $m\angle CDA + m\angle BAD = 180$
9. $m\angle CDA = m\angle BAD$
10. $m\angle CDA + m\angle CDA = 180$
2 $m\angle CDA = 180$
11. $m\angle CDA = 90$
12. $\angle CDA$ is rt. \angle
13. $ABCD$ is rect.

1. Given
2. Reflexive
3. opp. sides of $\square \cong$
4. SSS
5. CPCTC
6. def. \square
7. \parallel lines \rightarrow ss int. supp.
8. def. supp.
9. def. \cong
10. subst.
11. div. prop. $=$
12. def. rt. \angle
13. \angle of \square rt. $\angle \rightarrow$ rect.