

Practice 21

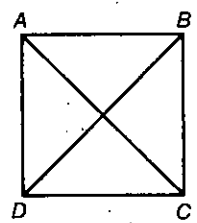
Cumulative Practice, Chapters 4-5

Complete.

- If $\triangle TOP \cong \triangle HAT$, then $\angle P \cong \underline{\angle T}$, $\overline{TP} \cong \underline{\overline{HT}}$, and $\triangle TPO \cong \underline{\triangle HTA}$
- In $\triangle TRI$, $\overline{TR} \cong \overline{TI}$. Then $\angle \underline{R} \cong \angle \underline{I}$.
- In trapezoid $TRAP$, $\overline{TR} \parallel \overline{PA}$. If $TR = 26$ and the median of $TRAP$ has length 32, then $PA = \underline{38}$.
- Name five theorems or postulates that can be used to prove two triangles congruent. SAS, SSS, ASA, AAS, HL
- In $\triangle RST$, if X is the midpoint of \overline{ST} and $\overline{YX} \perp \overline{ST}$, then \overline{YX} is a(n) \perp Bis. of \overline{ST} .

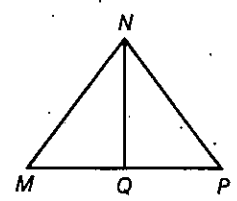
Give the name that best describes quadrilateral $ABCD$.

- $\overline{AB} \cong \overline{DC}$, $\overline{AB} \parallel \overline{DC}$, $\overline{AD} \cong \overline{BC}$, and $\overline{AD} \perp \overline{DC}$. Square
- \overline{AC} and \overline{BD} are perpendicular bisectors of each other. ~~HL~~ ~~AAS~~ Rhombus
- $\overline{AB} \parallel \overline{DC}$, $\overline{AD} \parallel \overline{BC}$, and $\overline{AD} \perp \overline{DC}$. Rect.
- $\overline{AB} \parallel \overline{DC}$, $\overline{AD} \parallel \overline{BC}$, and $\overline{AD} \cong \overline{BC}$. isos. trap.



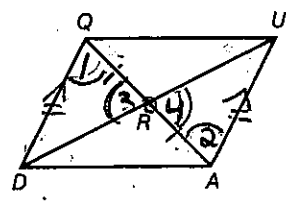
Name the theorem or postulate that can be used to prove that $\triangle NQM \cong \triangle NQP$ under the given conditions.

- $\overline{NQ} \perp \overline{MP}$ and Q is the midpoint of \overline{MP} . SAS
- $\overline{NQ} \perp \overline{MP}$ and $\overline{NM} \cong \overline{NP}$. HL or AAS
- $\overline{NQ} \perp \overline{MP}$ and \overline{NQ} bisects $\angle MNP$. ASA



Exs. 10-12

- Given: R is the midpoint of \overline{QA} ;
 $\overline{QD} \parallel \overline{UA}$
Prove: $\triangle QAD \cong \triangle QAU$



- R is midpt. of \overline{QA} 1. Given
- $\angle 1 \cong \angle 2$ 2. \parallel lines \rightarrow alt. int. \cong
- $\overline{QR} \cong \overline{RA}$ 3. def. midpt.
- $\angle 3 \cong \angle 4$ 4. Vert. \angle 's \cong
- $\triangle QRD \cong \triangle ARU$ 5. ASA
- $\overline{QD} \cong \overline{AU}$ 6. CPCTC
- $\overline{QA} \cong \overline{QA}$ 7. Reflexive
- $\triangle QAD \cong \triangle QAU$ 8. SAS