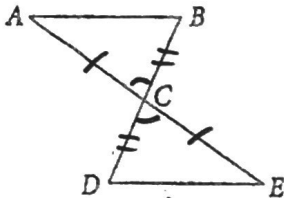
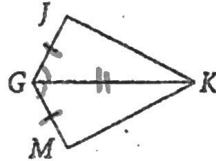


DIRECTIONS: Complete the following proofs using either the 2 column, paragraph or flow chart method.

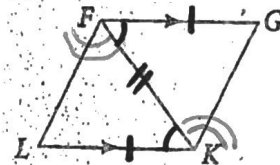
Given: \overline{AE} and \overline{BD} bisect each other.
Prove: $\triangle ACB \cong \triangle ECD$



Given: \overline{GK} bisects $\angle JGM$, $\overline{GJ} \cong \overline{GM}$
Prove: $\triangle GJK \cong \triangle GMK$



Given: $\overline{FG} \parallel \overline{KL}$, $\overline{FG} \cong \overline{KL}$
Prove: $\triangle FGK \cong \triangle KLF$



Statements

Reasons

Statements

Reasons

Statements

Reasons

1. \overline{AE} and \overline{BD} bisect each other
2. $\overline{AC} \cong \overline{CE}$
3. $\overline{BC} \cong \overline{CD}$
4. $\angle ACB \cong \angle DCE$
5. $\triangle ACB \cong \triangle ECD$

1. Given
2. Def. of Bisect
3. Def. of Bisect
4. Vert. \angle 's
5. SAS \cong

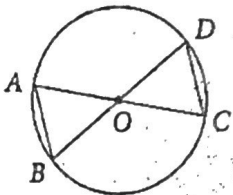
1. \overline{GK} bisects $\angle JGM$
2. $\overline{GJ} \cong \overline{GM}$
3. $\angle JGK \cong \angle KGM$
4. $\overline{GK} \cong \overline{GK}$
5. $\triangle GJK \cong \triangle GMK$

1. Given
2. Given
3. Def. of Bisect
4. Reflexive
5. SAS \cong

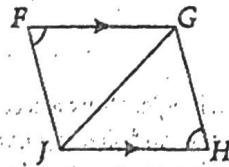
1. $\overline{FG} \parallel \overline{KL}$
2. $\overline{FG} \cong \overline{KL}$
3. $\overline{FK} \cong \overline{FK}$
4. $\angle GFK \cong \angle LKF$
5. $\triangle FGK \cong \triangle KLF$

1. Given
2. Given
3. Reflexive
4. Alt. Int. \angle 's
5. SAS \cong

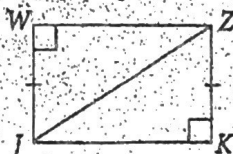
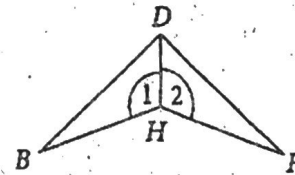
Given: $\odot O$ with A, B, C, D on the circle
Prove: $\triangle AOB \cong \triangle COD$



Given: $\angle F \cong \angle H$, $\overline{FG} \parallel \overline{JH}$
Prove: $\triangle FGJ \cong \triangle HJG$



Given: \overline{DH} bisects $\angle BDF$, $\angle 1 \cong \angle 2$
Prove: $\triangle BDH \cong \triangle FDH$



Given: $\overline{WJ} \cong \overline{ZK}$, $\angle JWZ$ and $\angle ZKJ$ right angles.
Prove: $\triangle WJZ \cong \triangle KZJ$

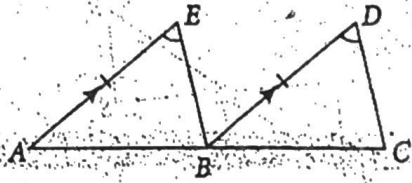
Statements

Reasons

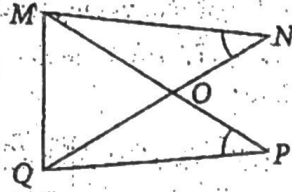
1. $\angle JWZ$ and $\angle ZKJ$ are rt. \angle 's
2. $\triangle WJZ$ and $\triangle KZJ$ are rt. \triangle 's
3. $\overline{WZ} \cong \overline{WZ}$
4. $\overline{WJ} \cong \overline{ZK}$
5. $\triangle WJZ \cong \triangle KZJ$

- a. ?
- b. ?
3. Reflexive Property of \cong
4. Given
- e. ?

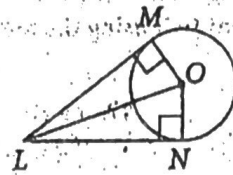
Given: $\overline{AE} \parallel \overline{BD}$, $\overline{AE} \cong \overline{BD}$, $\angle E \cong \angle D$
 Prove: $\triangle AEB \cong \triangle BDC$



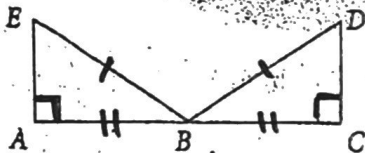
Given: $\angle N \cong \angle P$, $\overline{MO} \cong \overline{QO}$
 Prove: $\triangle MON \cong \triangle QOP$



Given: $\odot O$, $\angle M$ and $\angle N$ are right angles.
 Prove: $\triangle LMO \cong \triangle LNO$



Given: $\overline{EB} \cong \overline{DB}$, $\angle A$ and $\angle C$ are right angles,
 B is the midpoint of \overline{AC} .
 Prove: $\triangle BEA \cong \triangle BDC$



Given: $\square ABCD$, $\angle B$ is a right angle.
 Prove: $ABCD$ is a rectangle.



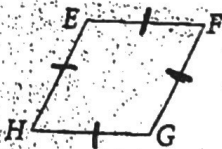
Statements | Reasons

- | | |
|--|-----------------|
| 1. $\overline{EB} \cong \overline{DB}$ | 1. Given |
| 2. $\angle A$ and $\angle C$ are rt. \angle 's | 2. Given |
| 3. B is mid. of \overline{AC} | 3. Given |
| 4. $\overline{AB} \cong \overline{BC}$ | 4. Def. of mid. |
| 5. $\triangle BEA \cong \triangle BDC$ | 5. HL |

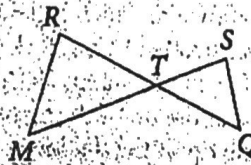
Statements | Reasons

- | | |
|--|--|
| 1. $\square ABCD$ | 1. Given |
| 2. $\angle B$ is rt. \angle | 2. Given |
| 3. $\angle C$ is rt. \angle | 3. $\square \rightarrow$ cons. \angle 's supp. |
| 4. $\angle D$ and $\angle A$ are rt. \angle 's | 4. $\square \rightarrow$ cons. \angle 's supp. |
| 5. $ABCD$ is rectangle | 5. $\square + 4$ right \angle 's \rightarrow rectangle |

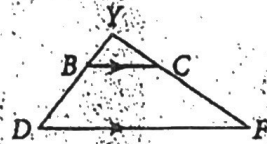
Given: $\square EFGH$, $\overline{EF} \cong \overline{FG}$
 Prove: $EFGH$ is a rhombus.



Given: $RT \cdot TQ = MT \cdot TS$
 Prove: $\triangle RTM \sim \triangle STQ$



Given: $\overline{BC} \parallel \overline{DF}$
 Prove: $\triangle BYC \sim \triangle DYF$



Statements | Reasons

- | | |
|--|---|
| 1. $\square EFGH$ | 1. Given |
| 2. $\overline{EF} \cong \overline{FG}$ | 2. Given |
| 3. $\overline{EF} \cong \overline{HG}$ | 3. $\square \rightarrow$ opp. sides \cong |
| 4. $\overline{FG} \cong \overline{EH}$ | 4. $\square \rightarrow$ opp. sides \cong |
| 5. $EFGH$ is a rhombus | 5. 4 \cong sides \rightarrow rhombus |