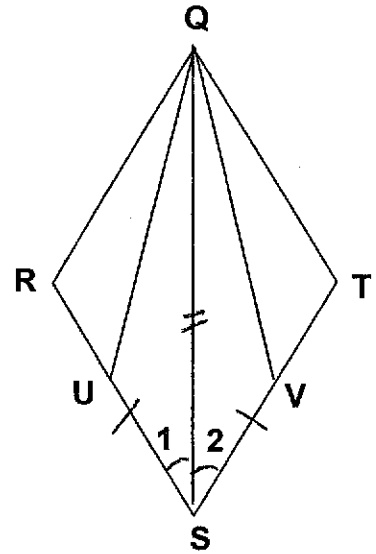


A. 1

Prove: $\overline{UQ} \cong \overline{VQ}$

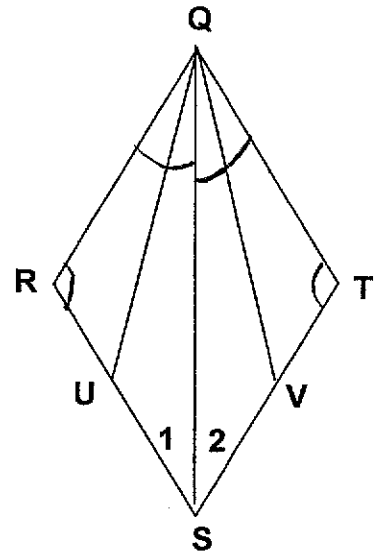
[illegible]

Proofs for Midterm Review

A. 2

Given: $\overrightarrow{QS}$ Bisects $\angle RQT$
 $\angle R \cong \angle T$

Prove: $\overrightarrow{SQ}$ Bisects $\angle RST$



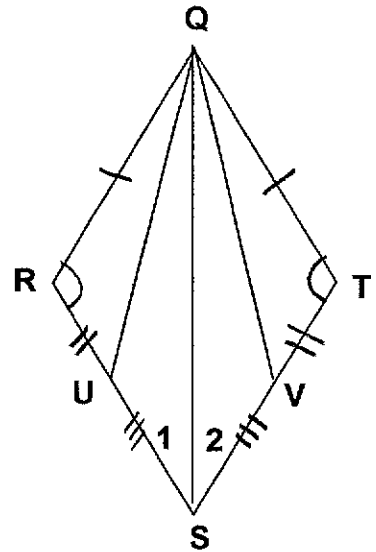
① $\overrightarrow{QS}$ Bisects $\angle RQT$	① Given
② $\angle RQS \cong \angle TQS$	② Defn of $\angle$ Bisector
③ $\angle R \cong \angle T$	③ Given
④ $\overline{QS} \cong \overline{QS}$	④ Reflexive
⑤ $\triangle RQS \cong \triangle TQS$	⑤ AAS
⑥ $\angle 1 \cong \angle 2$	⑥ CPCTC
⑦ $\overrightarrow{SQ}$ Bisects $\angle RST$	⑦ Defn of $\angle$ Bisector

Proofs for Midterm Review

B. 3

Given: $\triangle QRU \cong \triangle QTV$
 $\overline{US} \cong \overline{VS}$

Prove: $\triangle QRS \cong \triangle QTS$



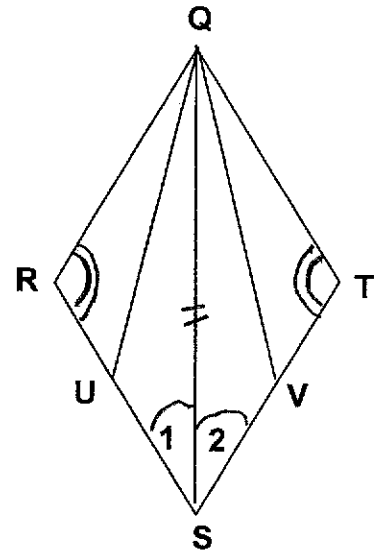
① $\triangle QRU \cong \triangle QTV$	① Given
② $QR \cong QT$	② CPCTC
$\angle R \cong \angle T$	
$\overline{RU} \cong \overline{TV}$	
③ $\overline{US} \cong \overline{VS}$	③ Given
④ $\overline{RU} + \overline{US} \cong \overline{TV} + \overline{VS}$	④ ADD. PROP
⑤ $\overline{RU} + \overline{US} = \overline{RS}$	⑤ SEG. ADD. POST
$\overline{TV} + \overline{VS} = \overline{TS}$	
⑥ $\overline{RS} \cong \overline{TS}$	⑥ SUBSTITUTION
⑦ $\triangle QRS \cong \triangle QTS$	⑦ SAS

Proofs for Midterm Review

B. 4

Given: $\overline{QS}$ Bisects $\angle UQV$ AND $\angle USV$
 $\angle R \cong \angle T$

Prove: $\overline{RQ} \cong \overline{TQ}$

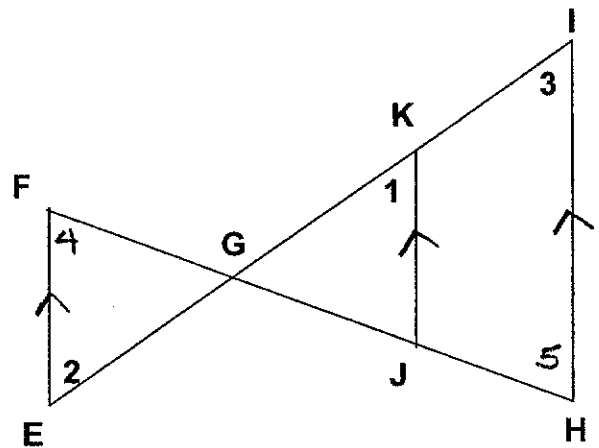


① $\overline{QS}$ Bisects $\angle UQV$ and $\angle USV$	① Given
② $\angle 1 \cong \angle 2$	② Defn of $\angle$ bisector
③ $\angle R \cong \angle T$	③ Given
④ $\overline{QS} \cong \overline{QS}$	④ Reflexive
⑤ $\triangle QRS \cong \triangle QTS$	⑤ AAS
⑥ $\overline{RQ} \cong \overline{TQ}$	⑥ CPCTC

Proofs for Midterm Review

B.5

Given: $EF \parallel JK$
 $JK \parallel HI$



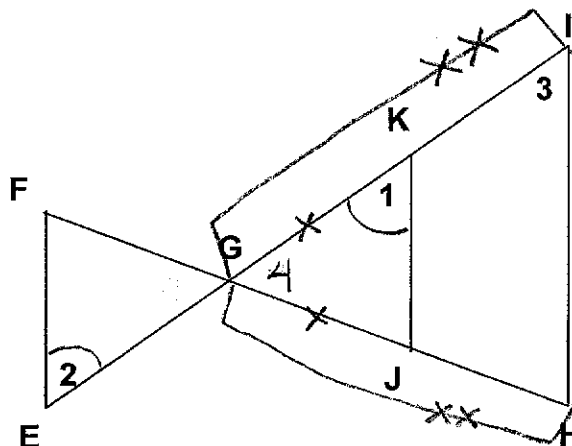
Prove: $\triangle EFG \sim \triangle IHG$

① $EF \parallel JK$ $JK \parallel HI$	① Given
② $EF \parallel HI$	② Two Lines $\parallel$ to a third line are $\parallel$ to each other
③ $\angle 2 \cong \angle 3$ $\angle 4 \cong \angle 5$	③ ALT INT $\angle$'s are $\cong$
④ $\triangle EFG \sim \triangle IHG$	④ AA $\sim$ Post

Proofs for Midterm Review

B. 6

Given: $\frac{JG}{HG} = \frac{KG}{IG}$, $\angle 1 \cong \angle 2$



Prove: $EF \parallel HI$

① $\frac{JG}{HG} = \frac{KG}{IG}$	① Given
② $\angle 4 \cong \angle 4$	② Reflexive
③ $\triangle JGK \sim \triangle HJI$	③ SAS $\sim$
④ $\angle 1 \cong \angle 3$	④ CSSTP
⑤ $\angle 1 \cong \angle 2$	⑤ Given
⑥ $\angle 2 \cong \angle 3$	⑥ Transitive
⑦ $FE \parallel HI$	⑦ IF ALT. INT $\angle$'s are $\cong$ then Lines $\parallel$.