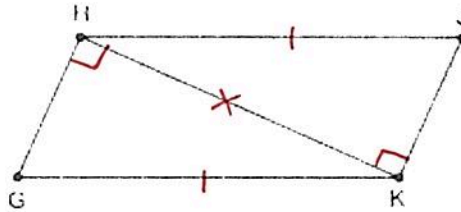


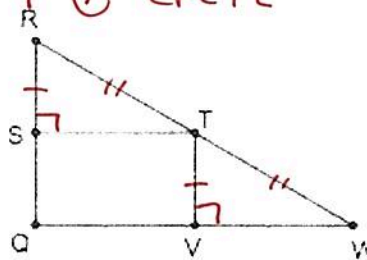
Hypotenuse Homework!

1. Given: $\overline{GH} \perp \overline{HK}$, $\overline{JK} \perp \overline{KH}$
 $\overline{GK} \cong \overline{JH}$
 Prove: $\angle G \cong \angle J$



| statement | reason |
|---|--|
| ① $\overline{GH} \perp \overline{HK}$, $\overline{JK} \perp \overline{KH}$ | ① Given |
| ② $\angle GHK$ and $\angle JKH$ are right \angle 's | ② \perp lines form right \angle 's |
| ③ $\angle GHK \cong \angle JKH$ | ③ All right \angle 's are \cong |
| ④ $\overline{GK} \cong \overline{JH}$ | ④ Given |
| ⑤ $\overline{HK} \cong \overline{HK}$ | ⑤ Reflexive Property |
| ⑥ $\triangle GHK \cong \triangle JKH$ | ⑥ HL \cong HL |
| ⑦ $\angle G \cong \angle J$ | ⑦ CPCTC |

2. Given: $\overline{RS} \cong \overline{TV}$
 $\overline{RS} \perp \overline{ST}$, $\overline{TV} \perp \overline{VW}$
 T is the midpoint of \overline{RW}
 Prove: $\angle RTS \cong \angle W$



| statement | reason |
|---|--|
| ① $\overline{RS} \cong \overline{TV}$ | ① Given |
| ② $\overline{RS} \perp \overline{ST}$, $\overline{TV} \perp \overline{VW}$ | ② Given |
| ③ $\angle RST$ and $\angle TVW$ are right \angle 's | ③ \perp lines form right \angle 's |
| ④ $\angle RST \cong \angle TVW$ | ④ All right \angle 's are \cong |
| ⑤ T is the midpoint | ⑤ Given |
| ⑥ $\overline{RT} \cong \overline{TW}$ | ⑥ Definition of a midpoint |
| ⑦ $\triangle RST \cong \triangle TVW$ | ⑦ HL \cong HL |
| ⑧ $\angle RTS \cong \angle W$ | ⑧ CPCTC |