4.3 PRACTICE


Mark the picture. Answer the question. Prove it.
16.

Given: $R$ is the midpoint of $\overline{S I}$ $\overline{\boldsymbol{H I}} \| \overline{\boldsymbol{S Q}}$

Prove: $\triangle R Q S \cong \triangle R H I$


WHY ARE THE TWO TRIANGLES CONGRUENT? I did ASA but you could do AAS as well (NOTE: THE STEPS CAN BE IN A DIFFERENT ORDER!)

| STATEMENTS |  |
| :--- | :--- |
| 1. $R$ is the midpoint of $\overline{S I}$ <br> $\overline{H I} \\| \overline{S Q}$ | 1. Given |
| 2. $\overline{S R} \cong \overline{R I}$ | 2. Definition of Midpoint |
| 3. $\angle H R I \cong \angle S R Q$ | 3. Vertical Angles are congruent |
| 4. $\angle S \cong \angle I$ | 4. Alternate Interior Angles are congruent |
| 5. $\Delta R Q S \cong \triangle R H I$ | 5. ASA |

Mark the picture. Answer the question. Prove it.
17.

Given: $\overline{G E}$ is the angle bisector of $\angle L E F$

$$
\angle L \cong \angle F
$$

Prove: $\triangle L E G \cong \triangle F E G$


WHY ARE THE TWO TRIANGLES CONGRUENT? AAS

| STATEMENTS | REASONS |
| :--- | :--- |
| $1 . \overline{G E}$ is the angle bisector of $\angle L E F$ <br> $\angle L \cong \angle F$ | 1. Given |
| 2. $\angle L E F \cong \angle F E G$ | 2. Definition of Angle Bisector |
| 3. $\overline{G E} \cong \overline{G E}$ | 3. Reflexive Property |
| 4. $\Delta L E G \cong \triangle F E G$ | 4. AAS |

