## 4.5-4.6 worksheet

Name:
In exercises 1-6, name a triangle congruent to the given triangle and state the congruence conjecture. If you cannot show any triangles to be congruent from the information given, write "cannot be determined."

1. $\triangle P I T \cong \triangle$ $\qquad$

2. $\overline{P S}$ is the angle bisector of $\angle Q P R$.

$$
\triangle P Q S \cong \triangle
$$


2. $\triangle X V W \cong \triangle$ $\qquad$

5. $\triangle A C N \cong \triangle$

3. $\triangle E C D \cong \triangle$ $\qquad$

6. $E F G H$ is a parallelogram. $G Q=E Q$.

$$
\triangle E Q L \cong \triangle
$$



In exercises 7-8, answer the questions.
7. The perimeter of $\triangle Q R S$ is 350 cm .

Is $\triangle Q R S \cong \triangle M O L$ ? Explain.

8. The perimeter of $\triangle T U V$ is 95 cm . Is $\triangle T U V \cong \triangle W X V$ ? Explain.

9. Find the measure of each lettered angle.

$\qquad$
In the exercises below, answer the question about the segment or angle congruence and EXPLAIN WHY and what congruence shortcut you used! If there if not enough information, write cannot be determined.

1. $\angle A \cong \angle C, \angle A B D \cong \angle C B D$ Is $\overline{A B} \cong \overline{C B}$ ?

2. $\overline{C S} \cong \overline{H R}, \angle 1 \cong \angle 2$

Is $\overline{C R} \cong \overline{H S}$ ?

2. $\overline{C N} \cong \overline{W N}, \angle C \cong \angle W$

Is $\overline{R N} \cong \overline{O N} ?(h)$

4. $\angle S \cong \angle I, \angle G \cong \angle A$
$T$ is the midpoint of $\overline{S I}$.
Is $\overline{S G} \cong \overline{I A} ?$ (h)

5. $\overline{B T} \cong \overline{E U}, \overline{B U} \cong \overline{E T}$

Is $\angle B \cong \angle E$ ? (h)


