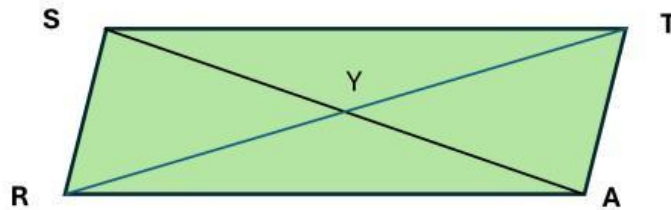




GUIDE CARD 2

Study the figure and examples about parallelogram.

Refer to parallelogram STAR below.



1. Name two pairs of opposite side that are congruent and parallel.

Answer: $SR \cong TA$ and $ST \cong RA$

2. Name two pairs of opposite angles that are congruent.

Answer: $\angle S \cong \angle A$ and $\angle R \cong \angle T$

3. Name four pairs of consecutive and supplementary angles.

Answer: $\angle S$ and $\angle T$; $\angle T$ and $\angle A$; $\angle A$ and $\angle R$; $\angle R$ and $\angle S$

4. If angle S equals 110 degrees, then what is the measure of angle A? Why?

Answer: Angle A measures 110 degrees because in a parallelogram, any two opposite angles are congruent.

5. If angle S equals 110 degrees, then what is the measure of angle R?

Answer and solution:

$\angle S + \angle R = 180^\circ$ because consecutive angles of parallelograms are supplementary.

$\angle R = 180^\circ - \angle S$ by addition property

$\angle R = 180^\circ - 110^\circ$ by substitution

$\angle R = 70^\circ$

6. If $\overline{SY} = 5.5 \text{ cm}$, then what is \overline{AY} ? Explain.

Answer: $\overline{AY} = \overline{SY}$, hence $\overline{AY} = 5.5 \text{ cm}$ because in a parallelogram, the diagonals bisect each other.