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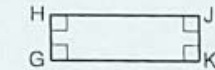
24-F

CW

Properties of Special Parallelograms

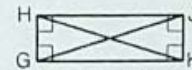
A **rectangle** is a quadrilateral with four right angles. A rectangle has the following properties.

Properties of Rectangles



GHJK is a parallelogram.

If a quadrilateral is a rectangle, then it is a parallelogram.



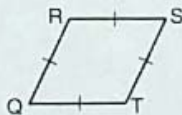
$\overline{GJ} = \overline{HK}$

If a parallelogram is a rectangle, then its diagonals are congruent.

Since a rectangle is a parallelogram, a rectangle also has all the properties of parallelograms.

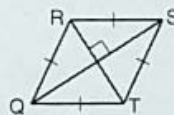
A **rhombus** is a quadrilateral with four congruent sides. A rhombus has the following properties.

Properties of Rhombuses



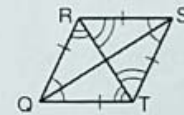
QRST is a parallelogram.

If a quadrilateral is a rhombus, then it is a parallelogram.



$\overline{QS} \perp \overline{RT}$

If a parallelogram is a rhombus, then its diagonals are perpendicular.



$\angle RQS \cong \angle SQT$

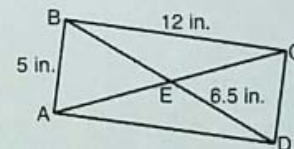
If a parallelogram is a rhombus, then each diagonal bisects a pair of opposite angles.

Since a rhombus is a parallelogram, a rhombus also has all the properties of parallelograms.

ABCD is a rectangle. Find each length.

1. BD 2. CD

3. AC 4. AE



KLMN is a rhombus. Find each measure.

5. KL 6. $m\angle MNK$

