Name: **Date:**

Problem-Based Task: Stained Glass Pattern, Part II

Coaching

a. Identify the two rhombuses in the new pattern.

b. In general, what are the properties of the sides of rhombuses?

c. In general, what are the properties of the angles of rhombuses?

d. What segment is shown to be the diagonal of $\square KLDM$?

e. The diagonal of a rhombus bisects opposite angles. Which angles are bisected by $\overline{KD}$?

f. Name the angles created by $\overline{KD}$ and determine if they are congruent to one another.

g. Is it possible to determine if $\triangle DLK \cong \triangle DMK$?

h. What segment is shown to be the diagonal of $\square KMHJ$?

i. The diagonal of a rhombus bisects opposite angles. Which angles are bisected by $\overline{KH}$?

j. Name the angles created by $\overline{KH}$ and determine if they are congruent to one another.

k. Is it possible to determine if $\triangle HMK \cong \triangle HJK$?

l. Mark congruent sides and angles on the diagram.

m. Is it possible to determine if $\triangle DLK \cong \triangle HMK$?

n. Is it possible to determine if $\triangle DLK \cong \triangle HJK$?

o. Can Mary confidently state that all triangles are congruent without using measuring tools?