Ways to prove a quadrilateral is a rhombus:



Ways to prove a quadrilateral is a rectangle:



Ways to prove a quadrilateral is a square:



Examples:

For #1-3, determine if the conclusion is valid. If not, tell what additional information is needed to make it valid.

1. Given $\overline{EF} \cong \overline{FG}$, $\overline{EG} \perp \overline{FH}$

Conclusion: EFGH is a rhombus.



2. Given: $\overline{EB} \cong \overline{BG}$, $\overline{FB} \cong \overline{BH}$, $\overline{EG} \cong \overline{FH}$, $\Delta EBF \cong \Delta EBH$ Conclusion: EFGH is a square.



3. Given: $\angle ABC$ is a right angle.

Conclusion: ABCD is a rectangle.



4. Use the diagonals to determine whether a parallelogram with the given vertices is a rectangle, rhombus, or square. Give all the names that apply. P(-1, 4), Q(2, 6), R(4, 3), S(1, 1)

+			7				-	-
-			6					
-			5					
-			4					
-			3					
-			2					
			1					
4 -3	-2	-1	0	1	2	3	4	5
-			-1					
-			-2				-	