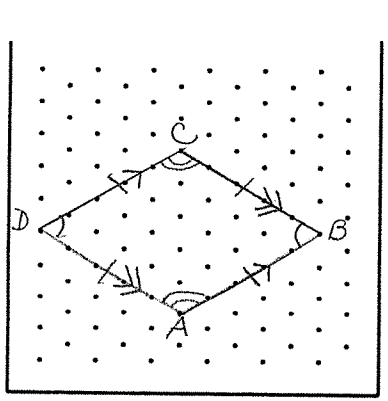
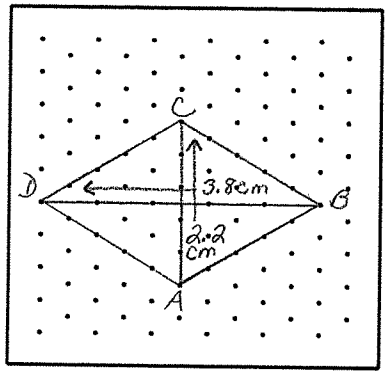
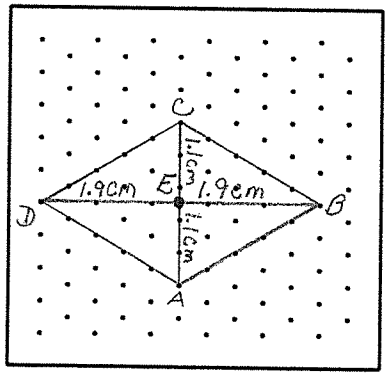
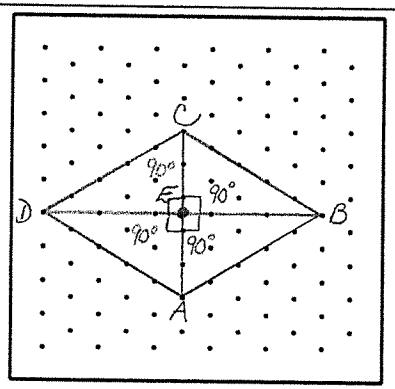
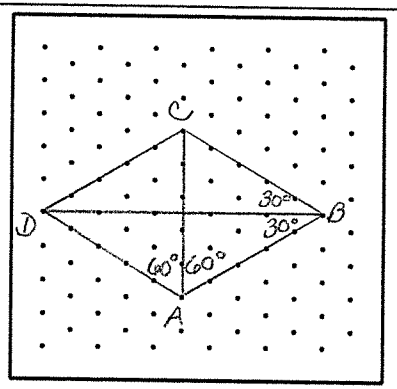
DESCRIPTION **OF** **RHOMBUS**		**DIAGRAM** **OF** **RHOMBUS**
DIAGONAL INVESTIGATION **#2** **DO THE DIAGONALS BISECT EACH OTHER?** Yes		**DIAGONAL INVESTIGATION** **#1** **ARE THE DIAGONALS CONGRUENT?** No
DIAGONAL INVESTIGATION **#4** **DO THE DIAGONALS BISECT VERTEX ANGLES?** Yes		**DIAGONAL INVESTIGATION** **#3** **ARE THE DIAGONALS PERPENDICULAR?** Yes

		A rhombus is a parallelogram with 4 congruent sides. The opposite sides are parallel and the opposite angles are congruent.	
$\overline{AC}$ = 2.2cm $\overline{BD}$ = 3.8cm Since $\overline{AC}$ is not congruent to $\overline{BD}$, then the diagonals of rhombuses are not congruent.			$m\overline{DE}$ = 1.9cm $m\overline{BE}$ = 1.9cm Since $m\overline{DE} = m\overline{BE}$ then diagonal $\overline{DB}$ has been bisected. $m\overline{AE}$ = 1.1cm $m\overline{CE}$ = 1.1cm Since $m\overline{AE} = m\overline{CE}$ then diagonal $\overline{AC}$ has been bisected.
∠DEC = 90° ∠CEB = 90° ∠BEA = 90° ∠AED = 90° In order for the diagonals to be perpendicular, the angles formed at the intersection of the diagonals must be 90°. Since all of these angles are 90°, the diagonals are perpendicular.			m∠DAC = 60° m∠CAB = 60° Since ∠DAC is congruent to ∠CAB, then ∠DAB (which is a vertex angle) has been bisected. m∠ABD = 30° m∠DBC = 30° Since ∠ABD is congruent to ∠DBC, then ∠ABC (which is a vertex angle) has been bisected.