Part 1

Use the figure on page 1.3 to answer the questions on pages 1.4 to 1.6 about the different types of angles. These are multiple choice questions. Use the up and down arrows on the NavPad to select your choice. To see if you are correct, press $\overset{\text{ctrl}}{\frown}$ + ▲ .

Part 2

On page 1.3 are two parallel lines, $\overleftrightarrow{AD} \parallel \overleftrightarrow{HE}$, cut by a transversal $\overleftrightarrow{CG}$.

The measure of ∠**ABC** and ∠**BFH** are given on page 2.1.

1. These two angles are _____ Angles.

2. Move point **F** to four different positions and record your measurements in the table.

	1st position	2nd position	3rd position	4th position
m∠ABC				
m∠BFH				

3. What is the relationship between the measurements of ∠ABC and ∠BFH?

   Congruent, complementary, or supplementary? _____

Part 3

The measure of ∠**ABF** and ∠**BFH** are given on page 3.1.

1. These two angles are _____ Angles.

2. Move point **F** to four different positions and record your measurements in the table.

	1st position	2nd position	3rd position	4th position
m∠ABF				
m∠BFH				

3. What is the relationship between the measurements of ∠ABF and ∠BFH?

   Congruent, complementary, or supplementary? _____

Part 4

The measure of ∠**DBF** and ∠**BFH** are given on page 4.1.

1. These two angles are _____ Angles.

2. Move point **F** to four different positions and record your measurements in the table.

	1st position	2nd position	3rd position	4th position
m∠DBF				
m∠BFH				

3. What is the relationship between the measurements of ∠DBF and ∠BFH?

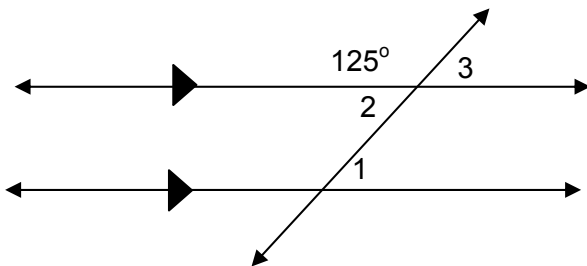   Congruent, complementary, or supplementary? _____

Conjectures

Complete the following conjectures based on your answers above.

1. For parallel lines and a transversal, if two angles are corresponding angles, then…

2. For parallel lines and a transversal, if two angles are alternate interior angles, then…

3. For parallel lines and a transversal, if two angles are same-side interior angles, then…

Complete the following problems.

The triangles in the middle of the lines tell us that the lines are parallel.

1. Find the measurement of ∠1, ∠2, and ∠3.

2. Find the value of **x** and **y**.