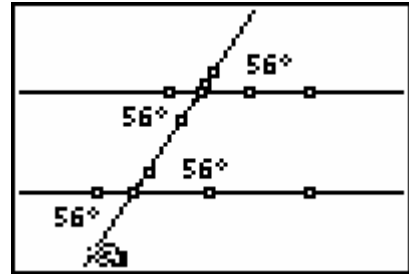


CABRI™ JR. ACTIVITY 6: PARALLEL LINES CUT BY A TRANSVERSAL

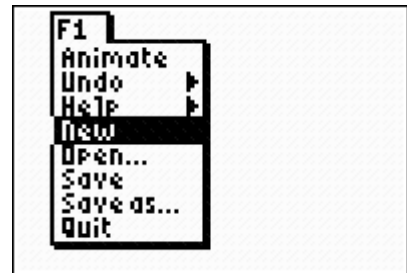
ACTIVITY OVERVIEW:

In this activity we will

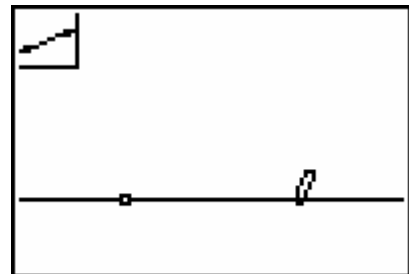
- Draw parallel lines
- Draw a transversal
- Explore angle relationships



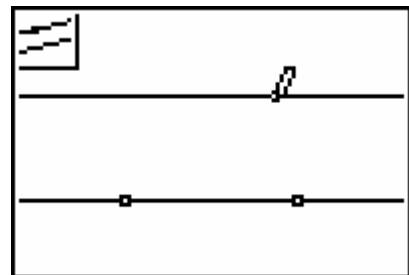
Press **[APPS]**. Move down to the CabriJr APP and press **[ENTER]**. Press **[Y=]** for the F1 menu and select **New**. (If asked to **Save changes?** press **[↩]** **[ENTER]** to choose “No.”)



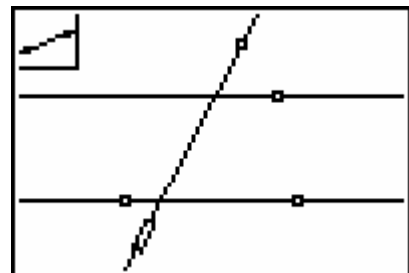
Press **[WINDOW]** for F2, move to **Line** and press **[ENTER]**. Move down and to the left and press **[ENTER]** to mark one point on the line. Move to the right and press **[ENTER]** to mark the second point defining the line.



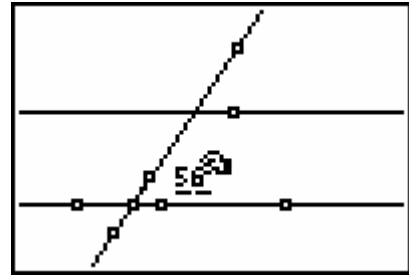
Press **[ZOOM]** for F3, move to **Parallel**, and press **[ENTER]**. Move the pencil until the line is blinking. Press **[ENTER]** then press **[↕]** until the second line is in the desired location. Press **[ENTER]** to mark the point through which the parallel line is drawn.



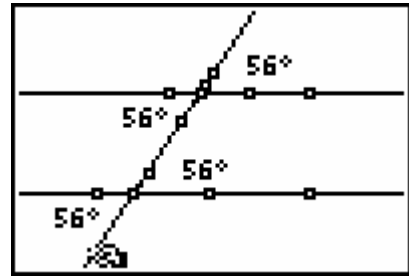
Press **[WINDOW]** for F2 and select **Line**. Move up and mark a point by pressing **[ENTER]**. Move down and left and press **[ENTER]** to mark the second point defining the transversal of the two parallel lines. Now we will measure angles and explore angle relationships.



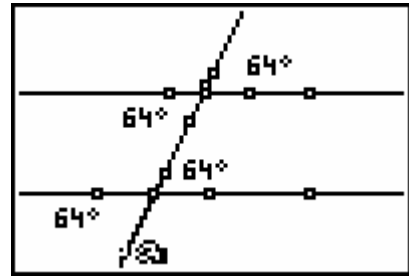
Press **[GRAPH]** for F5. Move down to **Measure**, then right and down to **Angle** then press **[ENTER]**. You must select three points to identify the angle. Move the pencil until one of the lines is flashing and press **[ENTER]** to select a point on that line. Move the pencil until one of the parallel lines and the transversal are both flashing and press **[ENTER]**. This will mark their intersection as the vertex of the angle. Move the pencil to the other line forming a side of the angle. Press **[ENTER]** when that line is flashing. Move each measurement to a convenient location. Press **[CLEAR]** to turn off the hand.



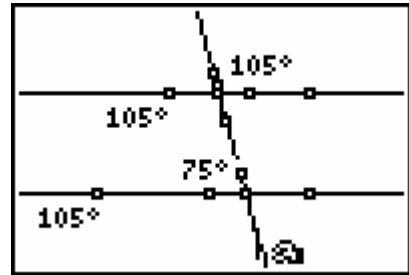
With the angle measuring tool active, measure some of the other angles formed—corresponding, alternate interior, alternate exterior... Move each measurement to a convenient location. Press **[CLEAR]** to turn off the hand.



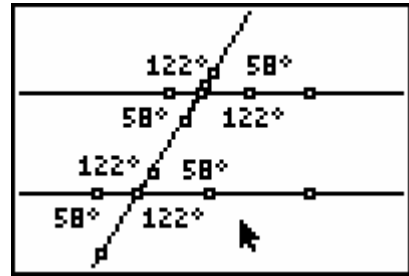
Move the pointer to one of the points which defined the location of the transversal. Press **[ALPHA]** to activate the *hand* and move this point. Observe the angle measures as the position of the transversal changes.



Extensions:
1. Move the transversal until one of the angles has “crossed over” and observe that you now have consecutive interior angles that are supplementary.



2. Measure the remaining angles and observe the relationships among the angle measures.



Exit the APP using F1 and selecting Quit, or by pressing **[2nd] [MODE]** for **[QUIT]**.



