

Name \_\_\_\_\_

Date \_\_\_\_\_

# EXPLORATIONS

## Activity 1

### Cabri Geometry Tour

In this activity, you will practice some of the basic functions of the Cabri Geometry software, including use of the Pointer, Point, Line, Measure, and Construct toolbars.

1. Create and label points.
  - a. From the Points Toolbar, select **Point**.
  - b. Move the pencil to any location in the plane and click. Immediately type the name of the point (for example, *A, B, C*). Repeat this process to make 5 points.
  - c. If you forget to label a point, select **Label** from the Display Toolbar. Move the crosshair near a point. When the message ***This point*** appears, click once. A box should appear. Type the label you wish to give this point (for example, *A, B, C*). Move the crosshair away from the point and click to remove the label box. Repeat this process for each of the points that are still unlabeled.

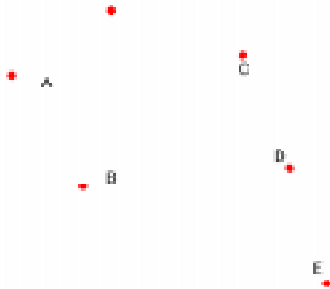


Figure 1.1

2. Correct an error.
  - a. From the Pointer Toolbar, select **Pointer**.
  - b. Move the crosshair to the point or line you wish to remove. When the appropriate message appears (for example, ***This point***), click to select that figure. (The selected item will begin flashing). Press the DELETE key. The selected figure will disappear.

3. Clear the screen.
  - Click on **Edit** and then click on **Select All**. Press the DELETE key.  
– or –
  - Press and hold the CTRL key and type A. Press the DELETE key.
4. Create two intersecting lines.
  - a. From the Lines Toolbar, select **Line**.
  - b. Move the pencil to the plane and click once. Type a point name (for example, *A*, *B*, *C*).
  - c. Move the pencil to a second spot and click once. This will create a line.
  - d. Repeat the first three steps to create a second line so that it intersects the first.
  - e. From the Points Toolbar, select **Intersection Point**.
  - f. Move the pencil to the intersection point until the message **Point at this intersection** appears. Click once. Type the point name.
  - g. From the Points Toolbar, select **Point On Object**.
  - h. Move the pencil until the message **On this line** appears. Click once. Type the point name.

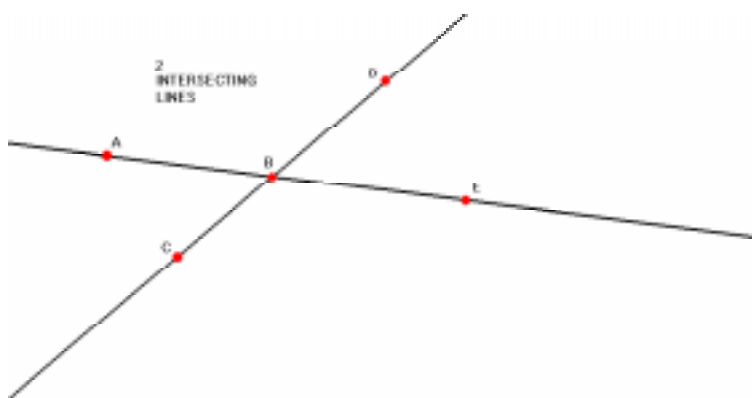


Figure 1.2

5. Clear the screen.
6. Create an angle.
  - a. From the Lines Toolbar, select **Ray**.
  - b. Click on the screen where you want the vertex of the angle. Type *B*.
  - c. Move the pencil and click once to establish one side of the angle.
  - d. Move the pencil to the vertex until the message **This point** appears. Click once.
  - e. Move the pencil to create an acute angle and click to establish second side.
  - f. From the Points Toolbar, select **Point On Object**.
  - g. Move the pencil to one ray until the message **On this ray** appears. Click once. Type *A*.
  - h. Move the pencil to the second ray until the message **On this ray** appears. Click once. Type *C*.

7. Measure an angle.
  - a. From the Measure Toolbar, select **Angle**.
  - b. Move the cursor to point *A*. The message ***This point*** appears. Click once.
  - c. Move the cursor to point *B*. The message ***This point*** appears. Click once.
  - d. Move the cursor to point *C*. The message ***This point*** appears. Click once.
  - e. The measure of the angle appears with a flashing bar. This allows you to type the name of the angle (for example,  $ABC = 45.5$ ).

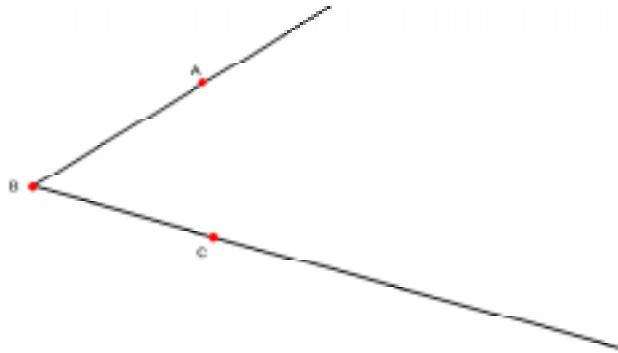


Figure 1.3

8. Change the angle.
  - a. From the Pointer Toolbar, select **Pointer**.
  - b. Move the cross-bar until you see the message ***This ray***.
  - c. Click on one of the rays on the angle and hold until it becomes a hand.
  - d. You can now drag the angle and watch the angle change.

9. Bisect an angle.
- From the Construct Toolbar, select **Angle Bisector**.
  - Move the cursor to point *A*. The message ***This point*** appears. Click once.
  - Move the cursor to point *B*. The message ***This point*** appears. Click once.
  - Move the cursor to point *C*. The message ***This point*** appears. Click once.
  - Place a point on the bisector in the interior of the angle.
  - Using the new point, measure one of the angles created by the bisector.
  - This measure should be half of the original.

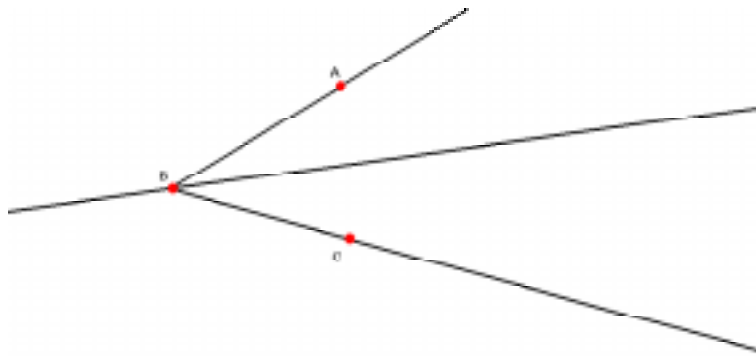


Figure 1.4

10. Clear the screen.
11. Create parallel lines.
- From the Lines Toolbar, select **Line**.
  - Move the pencil to the plane and click once.
  - Move the pencil to a second spot and click once. This will create a line.
  - From the Construct Toolbar, select **Parallel Lines**.
  - Move the pencil to the line until the message ***Parallel to this line***, appears. Click once.
  - Move the pencil off the line and click once. This creates the parallel line.

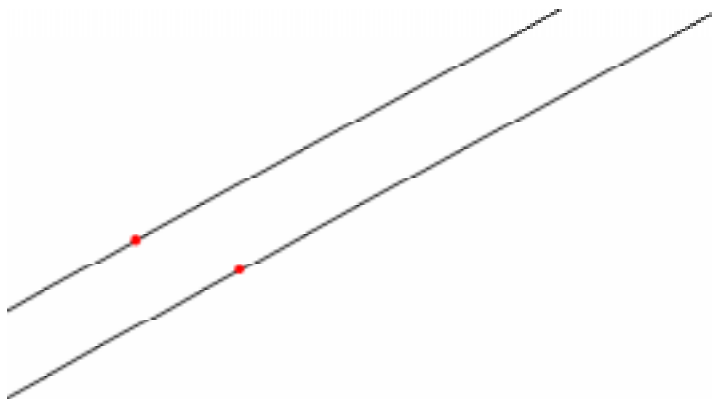


Figure 1.5

12. Clear the screen.
13. Create perpendicular lines.
  - a. From the Lines Toolbar, select **Line**.
  - b. Move the pencil to the plane and click once.
  - c. Move the pencil to a second spot and click once. This creates a line.
  - d. From the Construct Toolbar, select **Perpendicular Lines**.
  - e. Move the pencil to the line until the message *Perpendicular to this line* appears. Click once.
  - f. Move the pencil off the line and click once. This creates the perpendicular line.

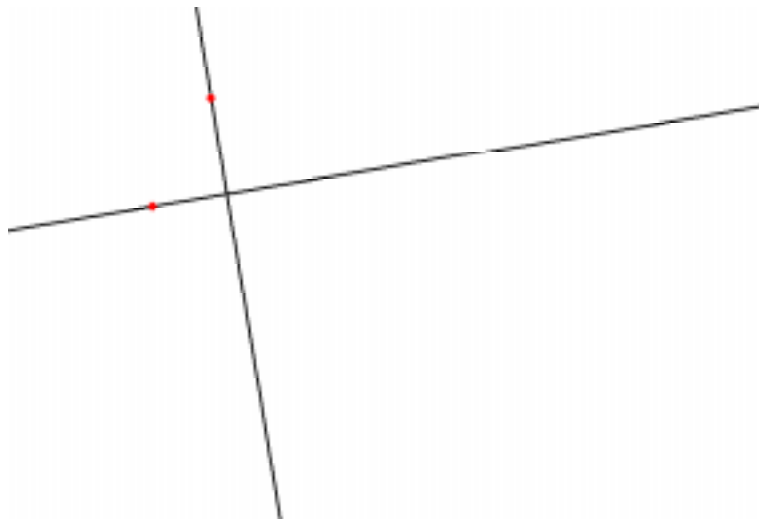


Figure 1.6

14. Clear the screen.
15. Create and label a triangle.
  - a. From the Lines Toolbar, select **Triangle**.
  - b. Click once, type *A*, and drag on the screen.
  - c. Click again to end the segment and create one side of the triangle. Type *B*, drag, and click again to finish the triangle. Type *C*.

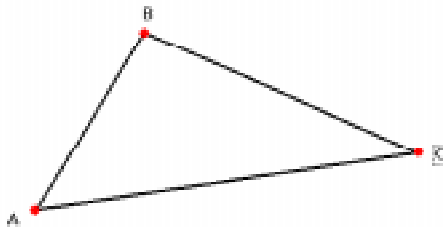


Figure 1.7