

Exploration Activity

1. If you drag your mouse over each picture on the toolbar, you'll see what each tool is called.
2. Draw any two points: Click the *Point Tool*. Move and click the pointer anywhere in the sketch plane. Click a second point in the plane.
3. Select both points: Click on the *Selection Arrow* and use it to select each point. Something is selected when it has a thick pink border around it.
4. Connect the points with a segment. You can do this in three ways.
 - a. One is to use the shortcut, which is Ctrl-L (after both points are highlighted).
 - b. You may also try selecting the two points and using "Construct / Segment."
 - c. The other way is to click the *Straightedge Tool* (You have options for what the ends of the line segment look like. For our purposes, we'll usually use the dots, not arrowheads). Move the mouse until the crosshair pointer is centered on one of the two points. Hold down the mouse button and then drag the mouse to the other point and release.
5. You may also use the line segment tool to draw a new line segment (that does not already have its end points on the worksheet). However you like to do it, create a triangle.
6. Highlight every part of the triangle. (This means you'll have to use the *Selection Arrow*.) You can either click on each part individually (the long way!) or you can highlight the entire triangle by dragging your mouse over it (like you were selecting text in Word) Move the triangle around by grabbing a segment with your mouse. Click any blank spot in the sketch plane and all objects will be deselected. (Note that you can also Ctrl-C {copy} and Ctrl-V {paste} a selected object.)
7. Move various components of the triangle and observe the effect: With the selection tool select just one vertex of the triangle. Hold down the mouse button and drag this vertex around. Change the triangle from acute to obtuse to isosceles to equilateral to right. Now select and drag around one of the segments. The position of the segment changes but not the length or slope.
8. Add circles to your drawing: Click the compass tool. Push the mouse button down where you want the center of the circle and drag to a point on the circle and release. The center is in the location where you press down the button and the end of a radius is where you release the mouse button. What happens to a circle when you select and drag the center? What happens when you select and drag a point on the circle?
9. Start a new sketch and construct a new triangle. Label the vertices and midpoints of the triangle:
 - a. Choose the "TEXT TOOL" (denoted with an "A" on the left-hand side).
 - b. Point the little hand at one vertex until the hand turns black. Then click. The point should now be labeled "A". You can then label the other two vertices as well.
10. Label the midpoints of your triangle $\triangle ABC$ with the names M, N and O. To do this, follow the same procedure as Step 10, except after labeling the point, and double-click on the vertex to change its name.
11. Now label the sketch "Triangle with Midpoints." Double click in an open space anywhere on the sketch. A box will appear and you can type in the box.