

## Creating a Line



This task will show you how to create a line in order to define point C (line left extremity).

The Sketch tools toolbar appears.



**As you will see all along this tutorial, the Sketch tools toolbar displays not only command options but also given fields and values that appear in accordance with the command you select. This toolbar is situated at the bottom right of the software screen.**

**If you cannot see it properly, just undock it.**



Snap to Point



Standard or Construction Elements




Geometrical Constraints (this icon is active, by default).





Dimensional Constraints (this icon is active, by default).



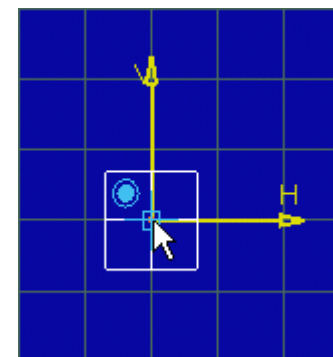
**1.** Activate the Construction Element icon  from the Sketch tools toolbar.  
**Construction lines** are lines that are internal to, and only visualized by, the sketch. These lines are used as positioning reference. They are not used to create solid primitives.

**2.** Click the Line icon .

When the cursor goes over the axis origin, a blue symbol  appears (coincidence between the axis

 origin point and the line start point).

3. Keep the coincidence symbol active and click the axis origin point.  
You created the first extremity point of the line.



 The Sketch tools toolbar now displays the following fields and values:

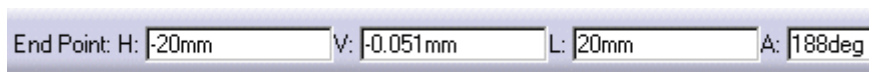


- The values that appear in the toolbar (H, V, L, A and so forth) are automatically updated as you move the cursor.
- The Sketch tools toolbar constantly provides the characteristics of the current element (First Point, as an example) as well as the position of this element.
- In addition to the toolbar and whenever possible, the element is dynamically displayed as it is created. As a result, you can choose more efficiently the optimum configuration for this element.

4. Press the TAB key as many times as necessary to position the cursor in the desired field of the Sketch tools toolbar.  
You can use the cursor to select the desired field.  
In this particular case, position the cursor in L field (length) and key in L: 20.  
The value you just keyed in automatically appears in the Sketch tools toolbar, as well as the corresponding unit.



5. Position the cursor in A field (angle) and key in 188.

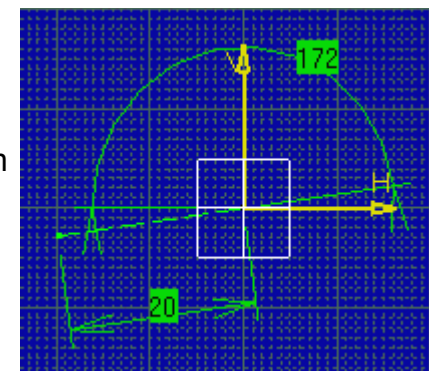


The values of the line second extremity point directly appear in the Sketch tools toolbar (L and A).

6. Press Enter.



The angle value you keyed in is oriented. As a consequence, keying in -172 amounts to keying +188 degrees. The constraint is represented by a 172 angle value because constraint representation system does not manage angle symbols.



In fact, symbol representation is issued out by means of angle sector management that you can modify by double clicking angle constraint representation.

Note that if the constraint representation overlays some of the geometry, you can move this constraint representation by dragging it with the cursor.

The line is created. Constraints (Length: 20mm and Angle: 188 degrees) appear on the line.

