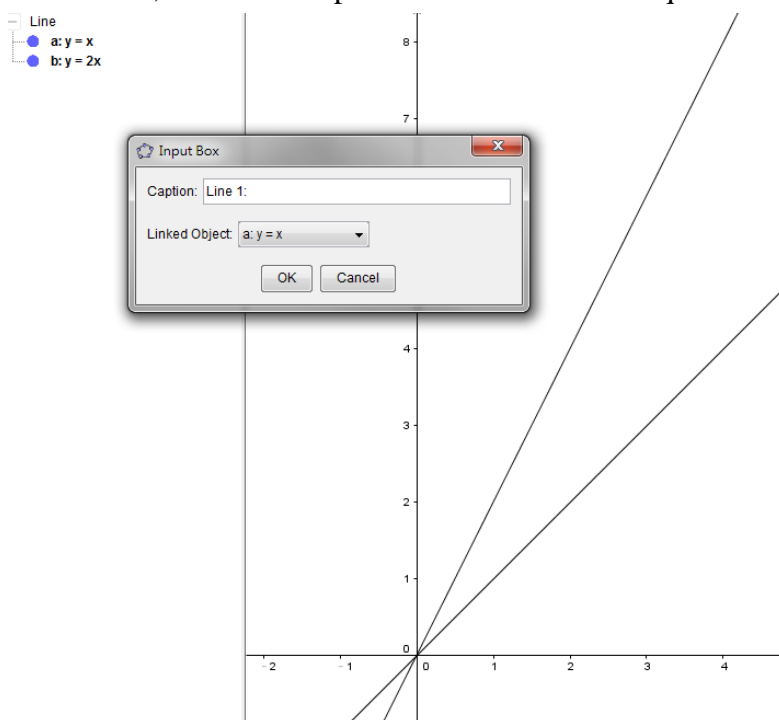**Task B: Locus of a point equidistant to two straight lines**
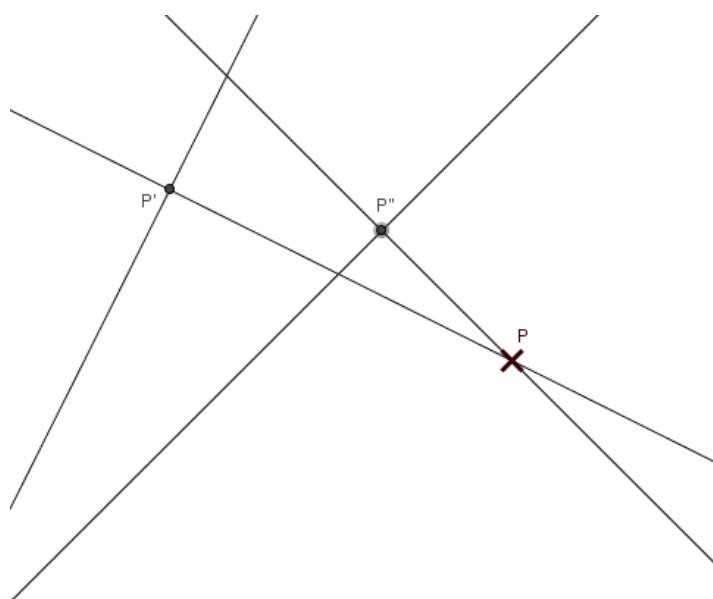
Step 1

Create any two straight lines by typing in their equations in the input bar.

Using the "Input Box" function, create two input boxes to control the equations of the straight lines.
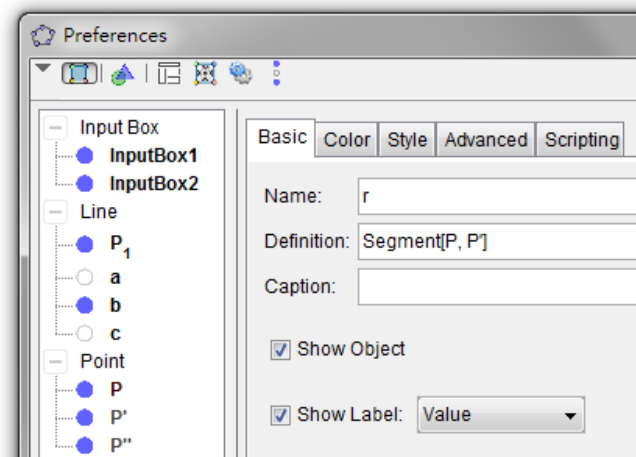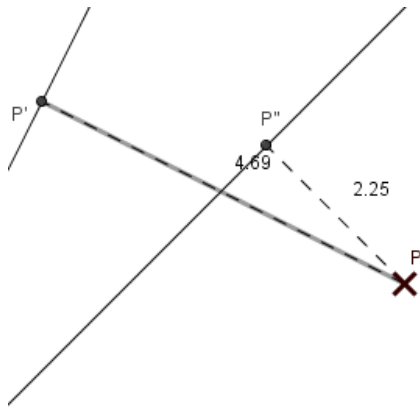

Step 2

Create a free point P.   Draw the perpendiculars from P to the lines, and label the feet of perpendiculars as P' and P".

Step 3

Hide the perpendicular lines.   Add two line segments by typing "r=Segment[P,P']" and "s=Segment[P,P'']" respectively in the input bar.   Change the style of the segments to broken line, and label them with "Value" in the "Object Properties" window.

Step 4

Define a dummy point X by typing "X=P" in the input bar.   In the "Advanced" feature of the "Object Properties" windows of the point X, set the "Condition to Show Object" as "-0.05 < r − s < 0.05", with the Dynamic Colors being "Red: 1; Green: 0; Blue: 0".
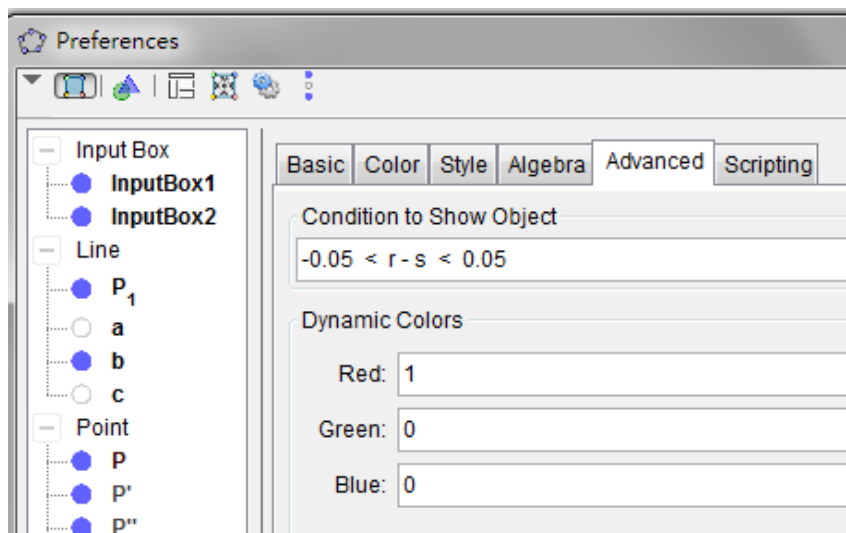
Also, at "Style", maximise the point size, and at "Basic", check the box "Show Trace".

Step 5

Create a Check Box "Hint" and link it with the line segments r, s, and the points P' and P''.

~ End of Task B ~