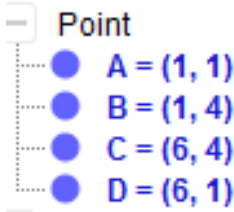
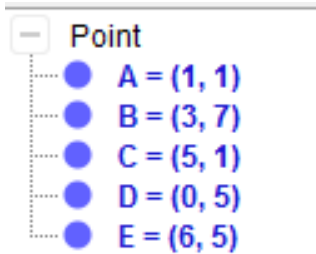
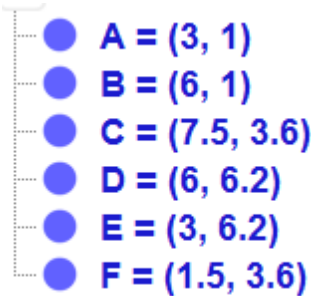
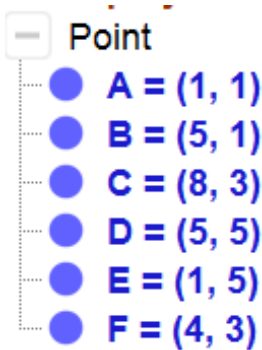


Relations on the xy plane

Name:.....

On the grid, plot the following sets of points. You can plot the points with the 'points tool' or you can enter them into the input bar as A=(1,1). Use the the polygon tool to join the points – join them in alphabetical order. Join the last point to the point A.

Sketch your results overleaf, and comment on any observations. Reset the diagram between each task.

<p>1</p> 	<p>5</p> <p>Click on the 'slider tool'.</p> <p>Set values from 0 to 10, with increment 1</p> <p>Now enter the point $A=(a,2a)$ to the input bar. Slide the slider. Right click on the point and select 'trace on' to see all 11 points plotted at once.</p>
<p>2</p> 	<p>6</p> <p>Now edit the point $A=(a,\sqrt{a})$</p> <p>Slide the slider!</p> <p>Now enter the point $B=(a, -\sqrt{a})$.</p> <p>What do you suppose the 'sqrt' command means?</p>
<p>3</p> 	<p>7</p> <p>Right click on the slider tool (or delete and start again) to open settings. Set minimum to -8, maximum to 8.</p> <p>Now enter the point $A=(a, a^2)$</p> <p>Slide the slider!</p> <p>(Probably use the four arrow tool to drag the y axis down to see higher values of y).</p>
<p>4</p> 	<p>8</p> <p>Now right click on the slider to set the increment to 0.1 enter the points</p> <p>$A=(a,3a-4)$ $B=(a, 3a)$ $C=(a, 3a+4)$ $D=(a,-3a-4)$ $E=(a,-3a)$ $F=(a,-3a+4)$</p> <p>to the input bar. (press enter after each point)</p> <p>Turn 'trace on' and Slide the slider.</p>

1	5
2	6
3	7
4	8

Use the slider tool to make up your own relation.