

Desmos Mystery Ordered Pair Dot-to-Dot

BEGIN AN EXPRESSIONS LIST WITH THESE TWO ORDERED PAIRS

One way to write ordered pairs in Desmos is with parentheses. Begin an expression list by typing (1,5) on one line and (-1,5) on another. These dots will not be connected to any other dots.

MAKE SEVEN TABLES OF ORDERED PAIRS

Another way to write ordered pairs is in a table. The points in each table will be connected later to form a polygon. For each of the 7 tables, click on the "+", select table, and type its ordered pairs.

x_1	y_1	x_2	y_2	x_4	y_4	x_5	y_5
0	8	6	-6	3.5	1.5	1	-10
2	7	14	-9	8	5	1	-12
3	5	17	-4	6	11	1.8	-12
3	4	14	-1	0.3	10	0.2	-12
2	2	6.5	-3	0.3	8.25		
3.5	1	6.5	-5	2.25	7.5	x_6	y_6
5	-1			3.5	5	0.75	4
6	-3	x_3	y_3	3.5	4	-0.75	4
6	-5	6.3	-2.5	2.5	2.1	0	2.75
5	-7	14	-0.5				
4	-6	15	5			x_7	y_7
3	-9	8	4.5			0.25	4
1	-10	4	1			1	4
0	-10	5	0			1	2.5
						0.5	2.5
						0.5	3.75

CONNECT THE DOTS TO MAKE POLYGONS

Next, type the following to make each table into a polygon (or the reflections over the y-axis for tables 1-5).

`polygon(x_1, y_1)`

`polygon(x_2, y_2)`

`polygon(x_4, y_4)`

`polygon((1,-11),(x_5, y_5))`

`polygon(- x_1, y_1)`

`polygon(- x_2, y_2)`

`polygon(- x_4, y_4)`

`polygon((-1,-11),(- x_5, y_5))`

`polygon(x_3, y_3)`

`polygon(x_6, y_6)`

`polygon(- x_3, y_3)`

`polygon(x_7, y_7)`

CHANGE THE COLORS OF THE POLYGONS

Now that you have all the polygons, you can erase the dots by clicking the color icon on each table of ordered pairs. You may want to change the colors of the polygons. If you click on the gear icon and then a color icon, you will see 6 different color options, but you can add more. To add brown and yellow, type:

`c7=hsv(30,255,0.7)`

`c8=hsv(60,0.9,0.9)`

ADD A TITLE OR GREETING

To add a title, type the ordered pair, (0,13), click on the color icon to make it white, type in a title next to "label" and check the box. To change font size, click on the gear icon, click the white circle, and adjust the number next to the A to be between 2 and 5 as desired. Change the font color if desired.