Math 8IB: Patterns, Patterns EVERYWHERE...

				NAME:
Go to d	esmos.com	Start G	raphing to plot some (of the points shown below.
Check t	he boxes be	elow that a	apply to your graphs if	the points were connected and extended.
Think a	bout how tl	he dependa	ant variable changes a	s the x-value increases by 1.
Can you	ı think of a	rule? Try it	in desmos (write it as	y =). Does it work?
1.	x 2 3	? 1 -1	a) The poi	nts form a straight line a curve
	4 5 6 7	-3 -5 -7 -9	b) If the po	oints were connected and the pattern extended: it would pass through the y-axis at not pass through the y-axis passes through the x-axis at
Rule:				not pass through the x-axis
2.	X -2 -1 0 1 2 3	? 4 1 0 1 4	a) The poi	a straight line a curve pints were connected and the pattern extended: it would pass through the y-axis at not pass through the y-axis passes through the x-axis at not pass through the x-axis
				not pass an oagh the x axis

3.	х	,	a) The points form
	2	9	a straight line
	3	27	a curve
	4	81	
	5	243	
	6	729	b) If the points were connected and the pattern extended:
Rule:	7	2187	it would pass through the y-axis at not pass through the y-axis passes through the x-axis at not pass through the x-axis
4.	x 2 3	? 10 13	a) The points form ☐ a straight line
	4	16	a curve
	5	19	u curve
	6	22	
	7	25	b) If the points were connected and the pattern extended:
			it would pass through the y-axis at not pass through the y-axis passes through the x-axis at not pass through the x-axis

Rule:

5.			a) The points form	
	x 2 3 4	? -4 -9 -16	a straight line a curve	
	5 6 7	-25 -36 -49	b) If the points were connected and the pattern extended it would pass through the y-axis at not pass through the y-axis passes through the x-axis at not pass through the x-axis	
Rule:				
6.	x 2 3 4	? -4 -8 -16	a) The points form a straight line a curve	
	5 6 7	-32 -64 -128	b) If the points were connected and the pattern extended it would pass through the y-axis at not pass through the y-axis passes through the x-axis at not pass through the x-axis	

Rule:

7.			a) The points form
	x 2 3	? 4 10	a straight line a curve
	4 5 6 7	16 22 28 34	b) If the points were connected and the pattern extended: it would pass through the y-axis at not pass through the y-axis passes through the x-axis at not pass through the x-axis
Rule: _			
8.	x 2 3 4	? 18 54 162	a) The points form a straight line a curve
	5 6 7	486 1458 4374	b) If the points were connected and the pattern extended: it would pass through the y-axis at not pass through the y-axis passes through the x-axis at not pass through the x-axis

Rule: