Hough-Example

Question 1

You are given the following set of (x, y) picture points:

$$(1,1),\ (1,4),\ (2,6),\ (2,5),\ (4,7),\ (4,8),\ (4,9),\ (8,10),\ (8,13)$$

Apply the technique of the Hough Transform to detect patterns given by the following parameterization:

$$y = a \log_2 x + b$$

Quantize a into the 6 values 0,1,2,3,4,5. Quantize b into the 6 values 0,1,2,3,4,5.

A

What is the accumulator space?

b							
	5						
	4						
	3						
	2						
	1						
	0						
		0	1	2	3	4	5
				a			

B

What are the three most likely patterns?

1. $y =$
2. $y =$
3. $y =$