Hough-Example

Question 1

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

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

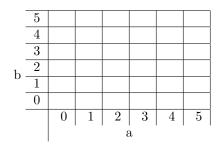
Apply the technique of the Hough Transform to detect patterns given by the following parameterization:

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

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

\mathbf{A}

What is the accumulator space?



\mathbf{B}

What are the three most likely patterns?

1.
$$y =$$

$$2. y =$$

$$3. y =$$