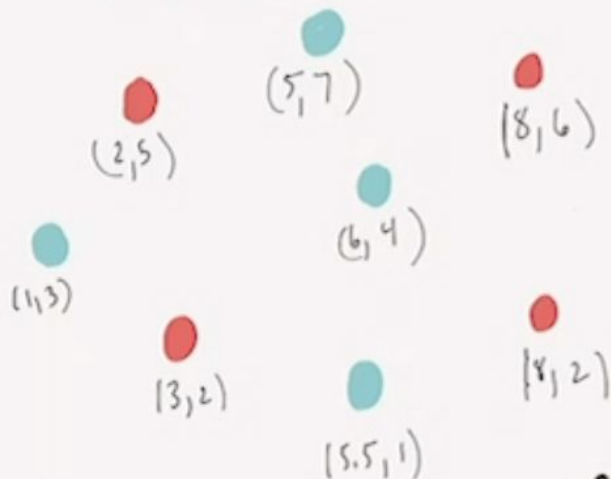


Functions

Week 7 Video 2

FIRST ATTEMPT



Red = SPAM
Blue = NOT SPAM

ORIGIN

$$f(1,3) = \text{BLUE}$$

$$f(2,5) = \text{RED}$$

$$f(3,2) = \text{RED}$$

$$f(5,7) = \text{BLUE}$$

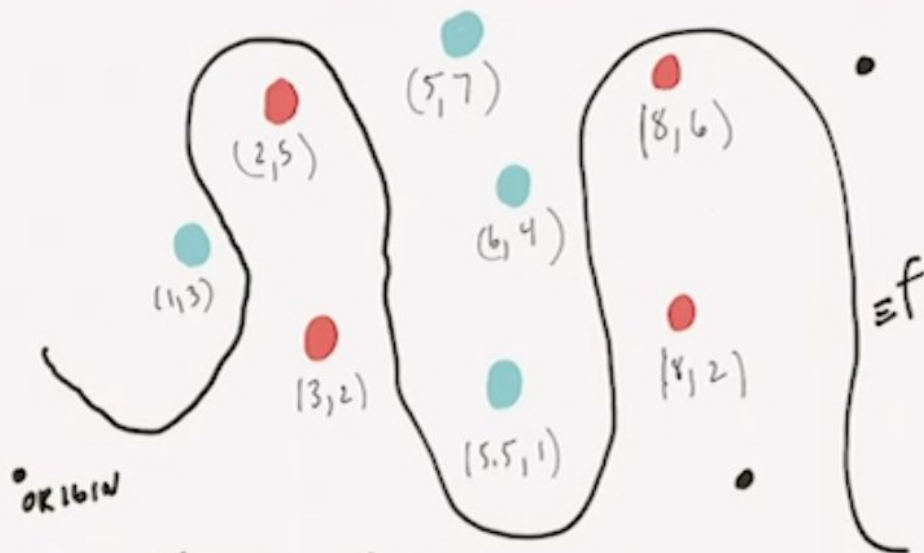
⋮

$$f(m) = \text{SPAM}$$

$$\hat{\text{err}}(f) = 0$$

$\text{err}(f)$ LARGE

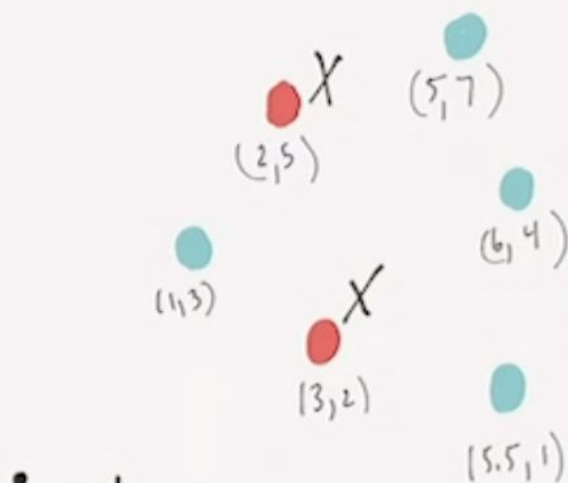
SECOND ATTEMPT



"BELOW f " → SPAM

"ABOVE f " → NOT SPAM

THIRD ATTEMPT



"RIGHT" of f
IS SPAM
"LEFT" of f
IS NOT SPAM

(8,6) ✓

(8,2) ✓

$\equiv f$

$$\hat{\text{err}}(f) = \frac{2}{8} = \frac{1}{4}$$