§ Discrete Logarithm Problem

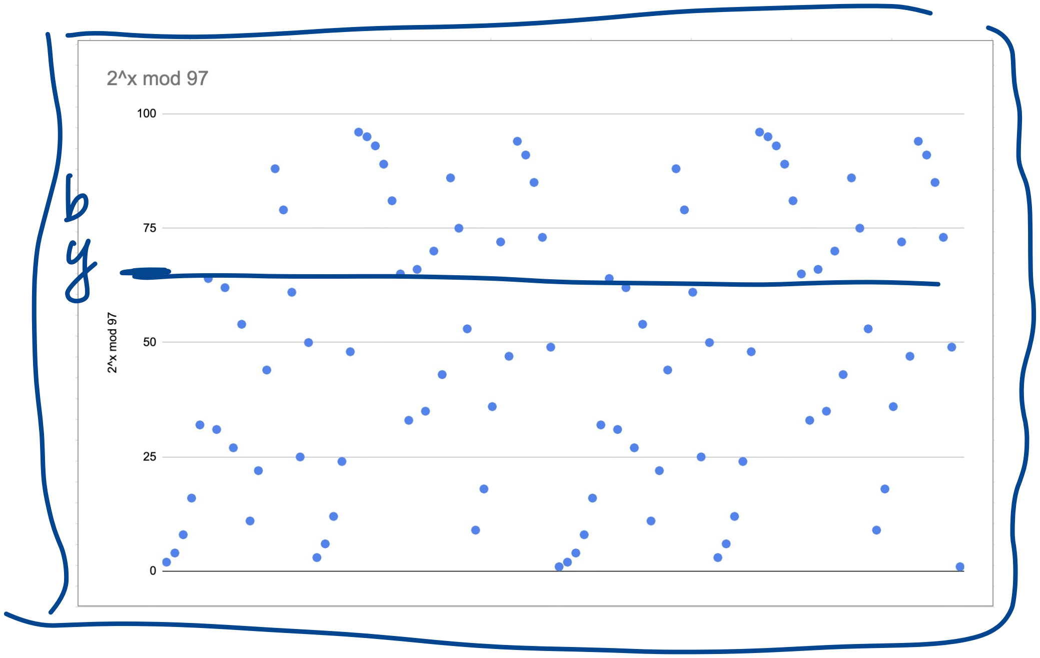
In discrete case

$a^x = b$

Forward Operation: exponentiation

given a, x, calculate b

Square-and-Multiply



Inverse Operation: discrete logarithm

given a, b, calculate x

Very much brute force

$$a^{x} = \underbrace{a \cdot a \cdots a}_{x \text{ times}} = \boxed{b}$$