Exercise 2: (1) Compute all points on \( y^2 = x^3 + 8 \) with \((x, y) \in \mathbb{F}_5^2\). (actually plug in \( x \) then solve for \( y \)).

(2) Use ECC to establish a shared secret key. 

Use \( E: y^2 = x^3 + 8 \) over \( \mathbb{F}_5 \), pick a point \( P \).

Alice picks an integer, sends \( aP \) To compute multiple - use
Bob picks a integer $x$ and sends $bP \text{ }$ with the formula from Ex. 1.

Share secret: $a(bP) = b(aP)$