

$$0 = (0, 0)$$

$$1 = (1, 1)$$

$$2 = (2, 2)$$

$$3 = (0, 3)$$

$$4 = (1, 0)$$

$$5 = (2, 1)$$

$$6 = (0, 2)$$

$$7 = (1, 3)$$

$$8 = (2, 0)$$

$$9 = (0, 1)$$

$$10 = (1, 2)$$

$$11 = (2, 3)$$

$$a = (a \bmod 3, a \bmod 4)$$

$$a = (0, 2)$$

$$x \equiv 0 \bmod 3$$

$$x \equiv 2 \bmod 4 \rightarrow x = 6$$

$$a = (1, 2)$$

$$x \equiv 1 \bmod 3$$

$$x \equiv 2 \bmod 4 \Rightarrow x = 10$$

$$(0, 3) + (1, 3) = (1, 6)$$

$$(1 \bmod 3, 6 \bmod 4)$$

$$\rightarrow (1, 2)$$

$$(2, 2) \times (2, 1) = (4, 2)$$

$$(4 \bmod 3, 2 \bmod 4)$$

$$(1, 2)$$

$$(1, 2) - (0, 2) = (1, 0)$$

$$10 - 6 = 4$$