

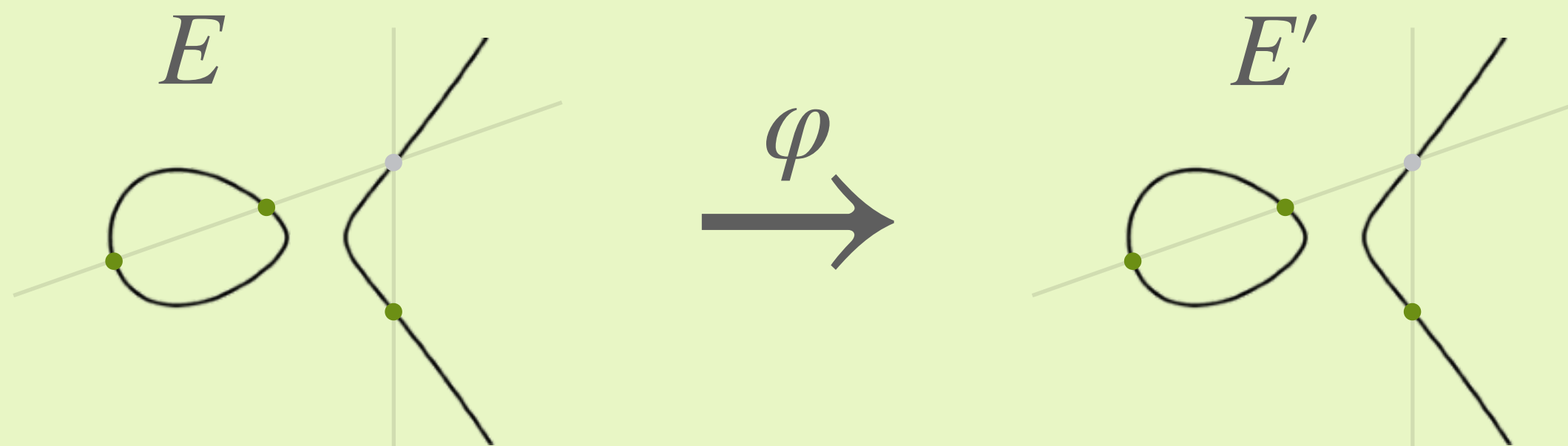
## PART 1

# SQLsign

### WARNING!

- SQLsign is a **difficult** scheme, especially signing
- To keep this talk “down to earth”, I will **simplify** a lot
- This will increase clarity and intuition by being **hand-wavy**, at the cost of rigor

### isogenies



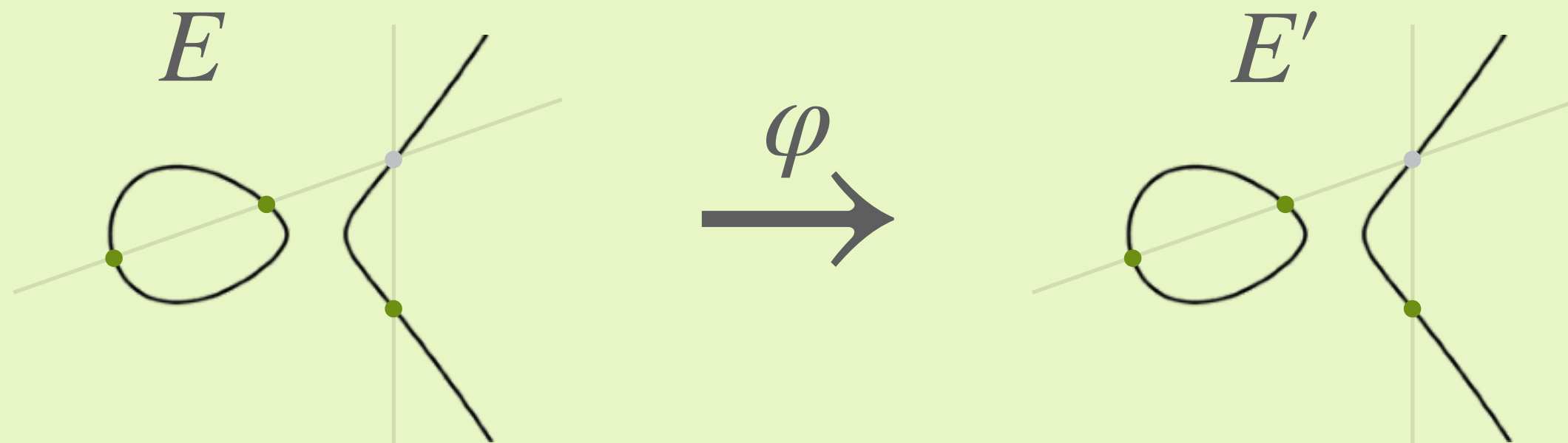
## PART 1

# SQIsign

### WARNING!

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### isogenies



#### Isogeny

- “nice” map  $\varphi$  (group homomorphism) between elliptic curves  $E \rightarrow E'$
- given by rational functions: a point  $(x, y) \in E$  is mapped to  $(f_1(x, y)/f_2(x, y), g_1(x, y)/g_2(x, y))$
- size of  $\ker \varphi$  is same as degree of  $\varphi$ !