

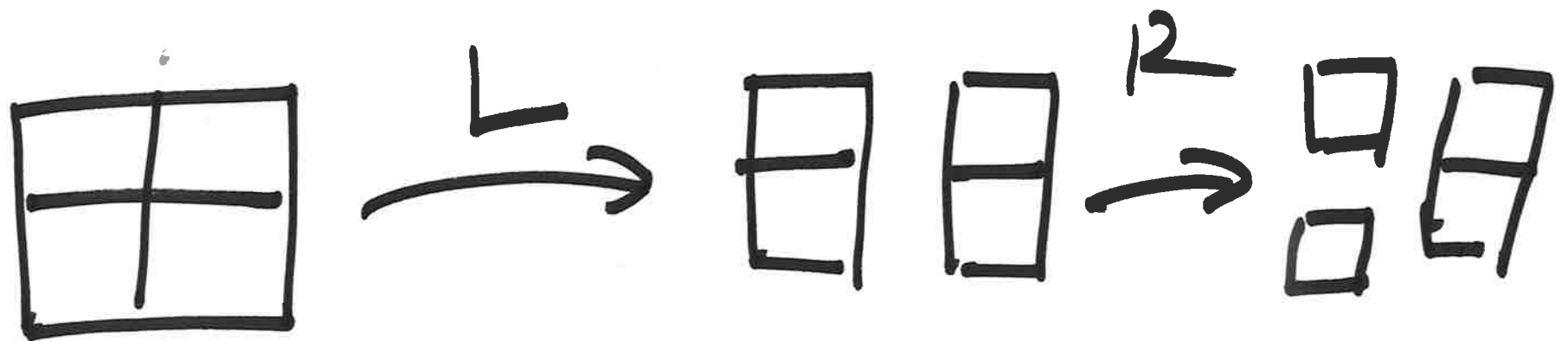
Games without  
dice or cards

COMBINATORIAL GAME  
Theory Tom Morley

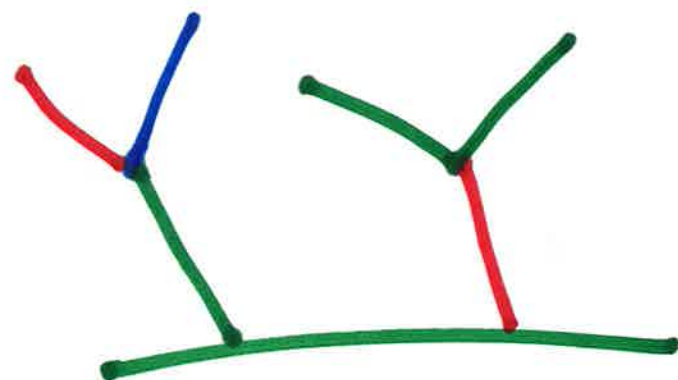
# Cutcake

Left cuts  $\uparrow$

R cuts  $\rightarrow$

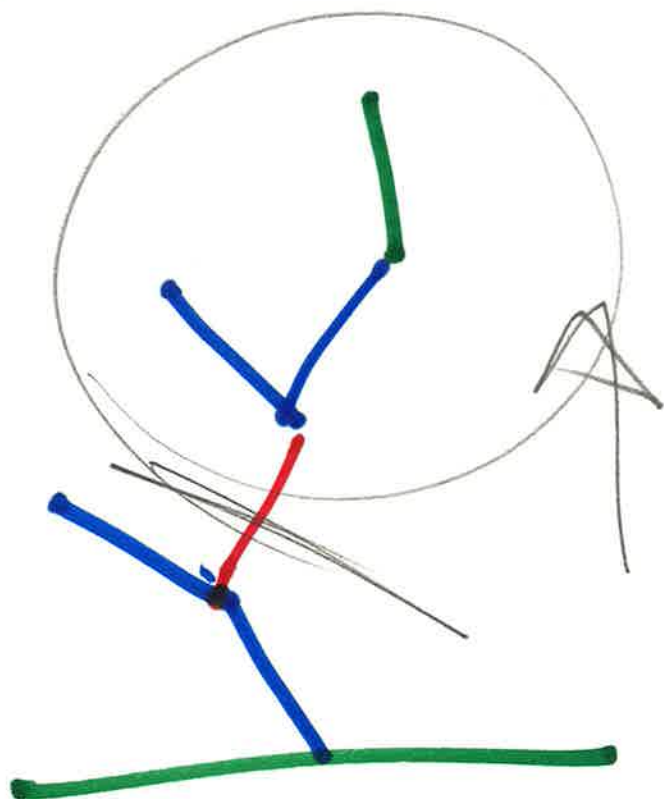


RIGHT WINS

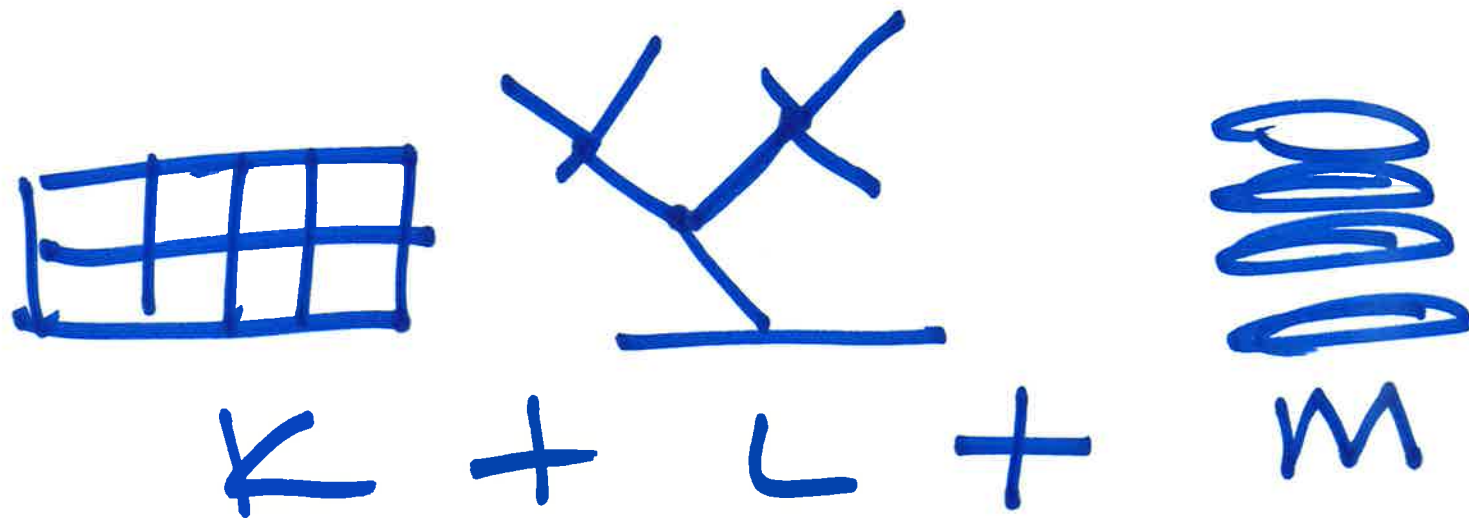
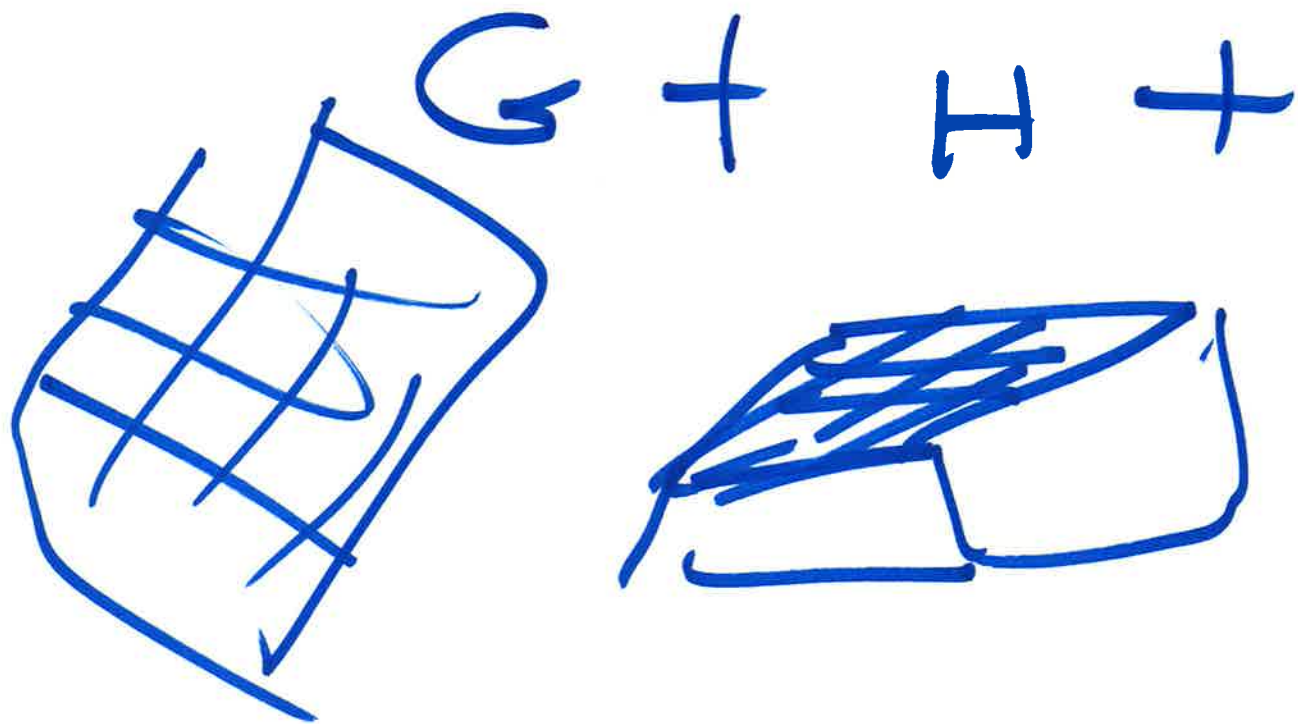


— Right

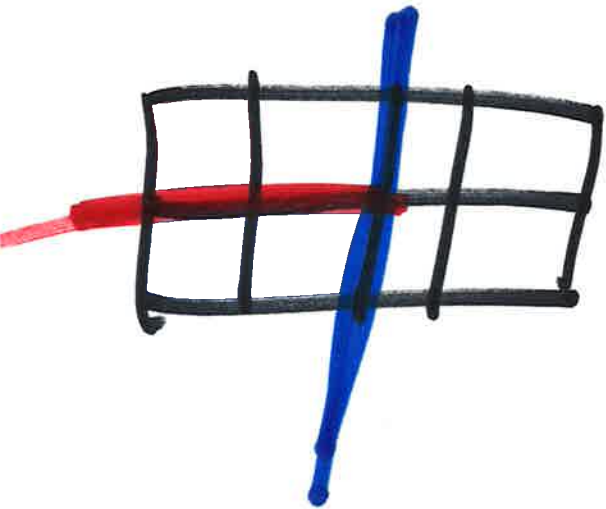
— BLUE  
= Left



— Green  
Both



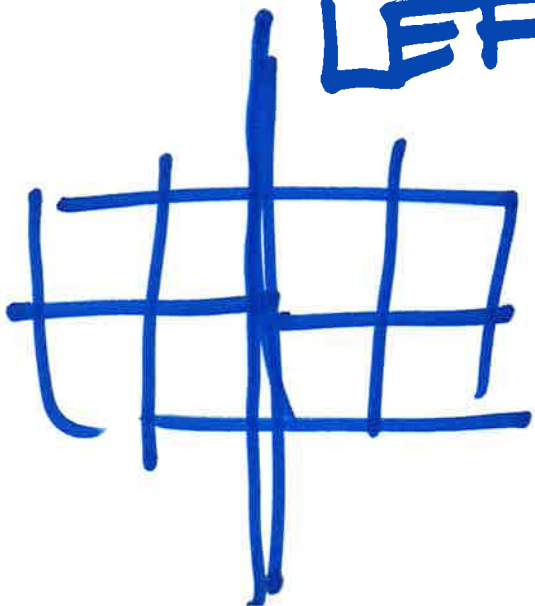
# RIGHT FIRST



## RIGHT LOSES

---

# LEFT FIRST



## Left Loses

G + H + K

G = H

G = O

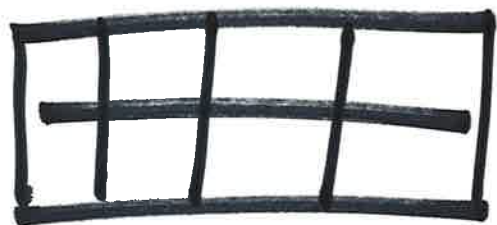


BEST PLAY 1<sup>ST</sup> PLAYER  
MOVE LOSES.

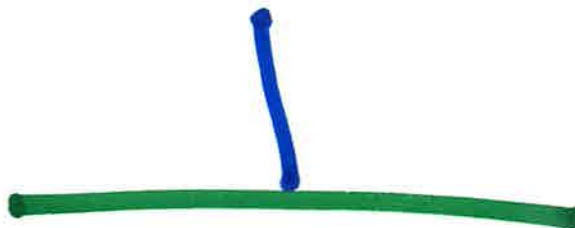
$$00 + 00 = 0$$

$$*2 + *2 = 0$$

G



H



?

||

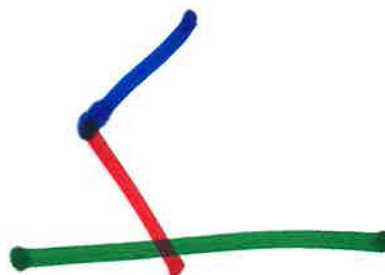
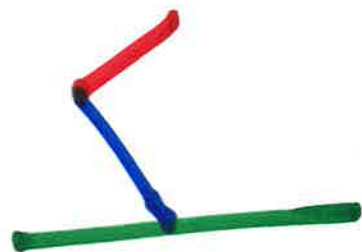
$$G - H = 0$$

G

= H ?



$G \longrightarrow -G$



$\rightarrow R \uparrow L$

$$G = H$$

$$G - H = 0$$

$$G + (-H) = 0$$

$$G = G$$

$$G - G = 0$$

Td Td Principle

