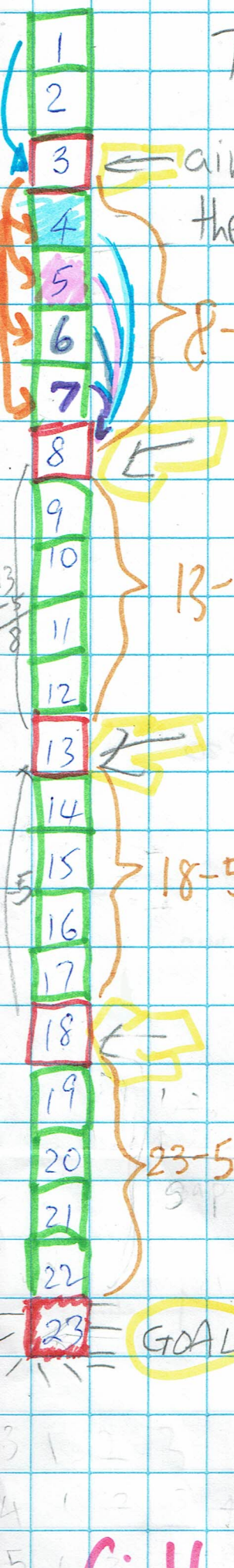
The total must never be greater than the target.



- if you play strategically -

If you start your turn there = LOSE

If you start your turn there = WIN

If you end your turn on a □, you're ok

If you end your turn on a □, you'll lose.

AIM FOR ⇐ numbers

STEP: 1, 2, 3, 4

Gap: 4 + 1 = 5

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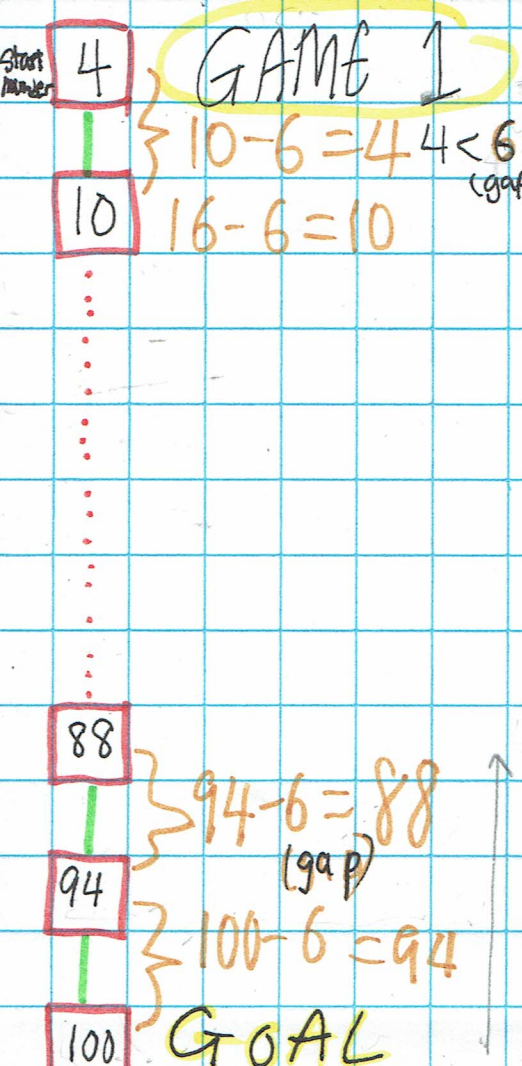
GAME 1



Steps: 1, 2, 3, 4, 5

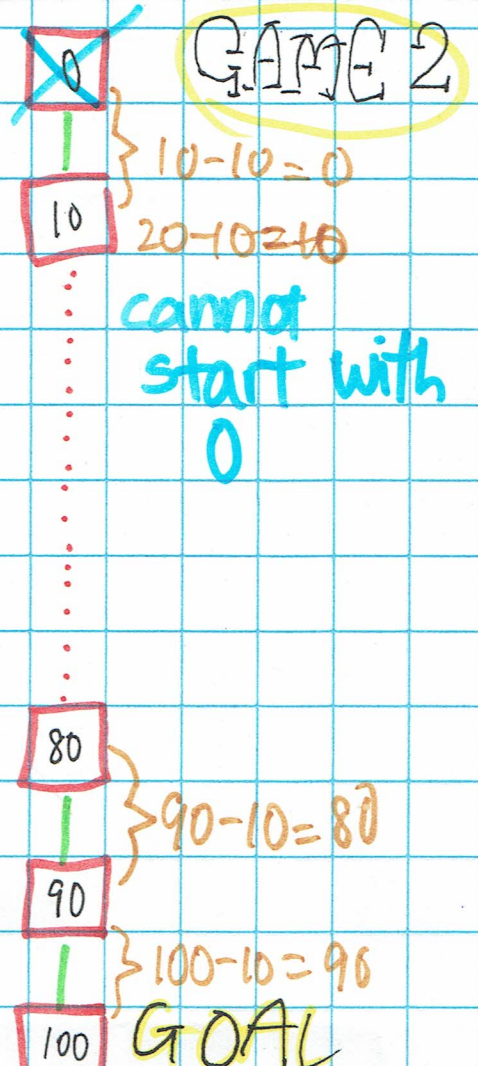
Gap: 5 + 1 = 6

Condition 1: Starting with 4 (and 4<6,) (4>0)

Condition 2: Where the first mover is playing strategically

Result: First mover wins

GAME 2



cannot start with 0

Steps: 1, 2, 3, 4, 5, 6, 7, 8, 9

Gap: 9 + 1 = 10

10 is a factor of 100

Starting number

Condition 1: Starting with 0 (and 0<10) (0>0)

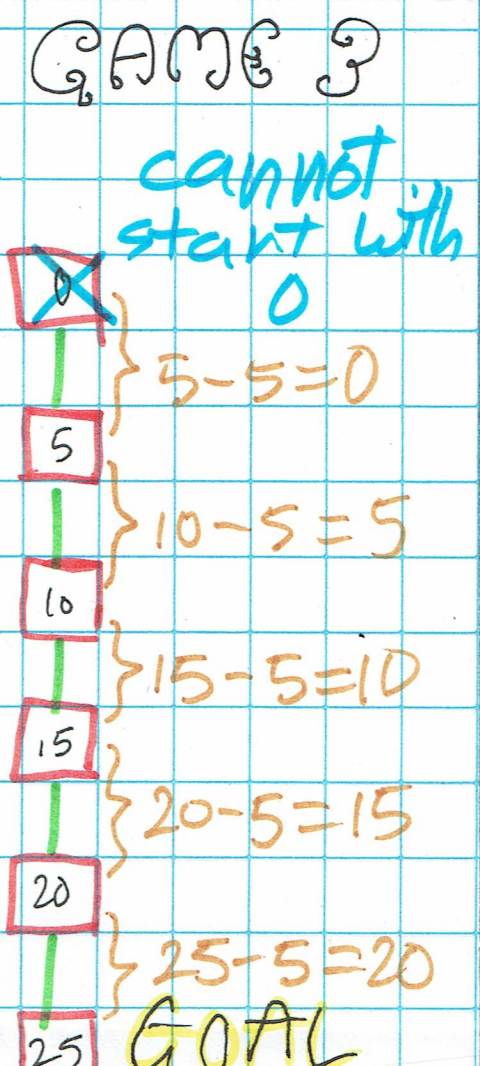
CONDITION 1 NOT MET

First mover cannot start with 10 (step range = 1-9)

Condition 2: Where the second mover is playing strategically

Result: Second mover wins

GAME 3



cannot start with 0

Steps: 1, 2, 3, 4

Gap: 4 + 1 = 5

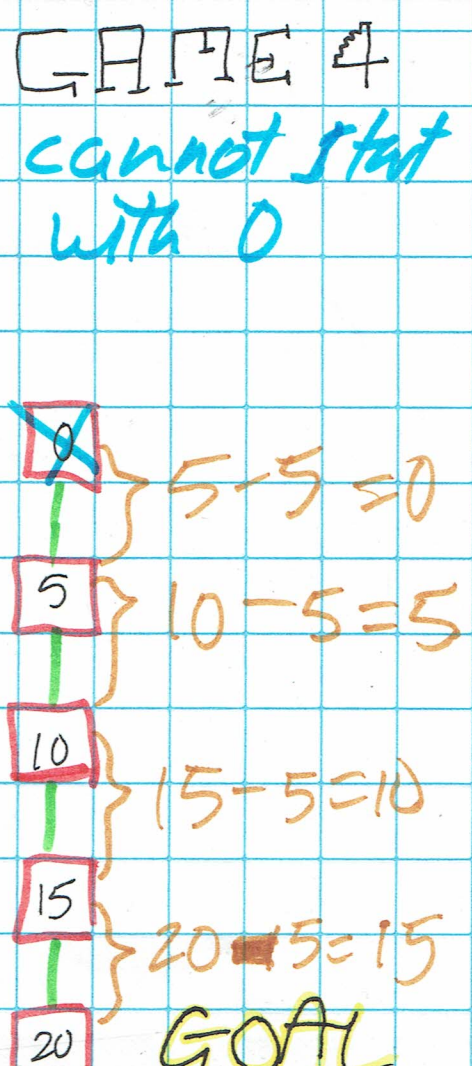
5 is a factor of 100

First mover cannot reach 5

Condition 2: Second mover plays strategically

Result: Second mover WINS

GAME 4



cannot start with 0

Steps: 1, 2, 3, 4

Gap: 4 + 1 = 5

5 is a factor of 100

First mover cannot reach 5

Condition 2: Second mover plays strategically

Result: Second mover WINS

LEGEND (for all)

- Strategy numbers (try to get)
- Gap (brown numbers)
- impossible
- Goal representing the numbers in between

Summary

Steps: 1, 2 .... maxi step

Gap: maxi step + 1

Strategy numbers (calculation)

$GOAL - n \times (gap) =$ strategy number

n is an interger

When $n=1$, $GOAL - 1 \times (gap) =$ last strategy number (before goal)

Starting strategy number:

Trial n (n is an integer) such that: $0 < GOAL - n \times (gap) < gap$

Where gap is not a factor of the GOAL

First mover wins

Otherwise, the second mover wins