

Initial total sum of numbers on blackboard:

$$1 + 2 + 3 + \dots + 2015 = \frac{(1 + 2015)(2015)}{2}$$

$$= (1008)(2015),$$

an even number.

Changing numbers a and b to $a-b$ either increases or decreases total sum by

$$a+b - (a-b) = 2b, \text{ an even number. Since}$$

even \pm even = even, Danny can never get 1, an odd number, on the board.