

# Lab 1 - F3

## • 15 Puzzle

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$16! = 20922789888000 = 2.1 \cdot 10^{13}$  start possibilities

$N = N_1 + N_2$   $N_1$  number with wrong position.

$N_2$  number with right position

1	2	3	4
5	6	7	8
9	10	11	12
13	15	14	

→ No solution

How to solve

1. Step: get the first row

(1 2) x x

(4 3)

← In this position

2. Step: second column

(5 6)

(8 7)

3. Step:

(13 9) x x  
x x x

4. Step:

9  
13

(10 14)

5. Step:

9  
13

10  
14

(11 12)  
(15)