

# outer cycle graph ( $2 \times 3$ sliding tile)

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- group positions into outer-6-cycle equivalence classes
- e.g. class for cycle (12354) (destination position)

1 2 3	1 2 _	1 _ 2	_ 1 2	4 1 2	4 1 2
4 5 _	4 5 3	4 5 3	4 5 3	_ 5 3	5 _ 3
4 1 2	4 1 _	4 _ 1	_ 4 1	5 4 1	5 4 1
5 3 _	5 3 2	5 3 2	5 3 2	_ 3 2	3 _ 2

...

this class includes 30 positions

- next page: adjacency graph (via sliding tile moves) of the 12 classes of solvable positions



