You Need

- Ten [10] 'kangaroos' (five [5] each of two colours)

The Story

Two groups of kangaroos meet on a narrow mountain trail.

Three [3] are going one way and three [3] are going the other way.

Their challenge is to swap sides using the rules below.

- Only one [1] kangaroo can move at a time.

- A kangaroo can:

    ... jump over one [1] *on-coming* kangaroo into an empty space

    ...or hop into an empty space next to itself.

Your Task

1. Find the *smallest number of moves* for the kangaroos to swap sides?

2. Find the *smallest number of moves* if there are two [2] kangaroos each side? ...or 1? ...or 4? ...or 5?

3. Copy this table. Enter your results for 1, 2, 3, 4, 5 kangaroos each side.

Number each side	1	2	3	4	5	6	7	8	9	10
Number of moves										

Look for a pattern that will help you complete the table up to 10.

Challenge

Predict the smallest number of moves for *any number of kangaroos* on each side.