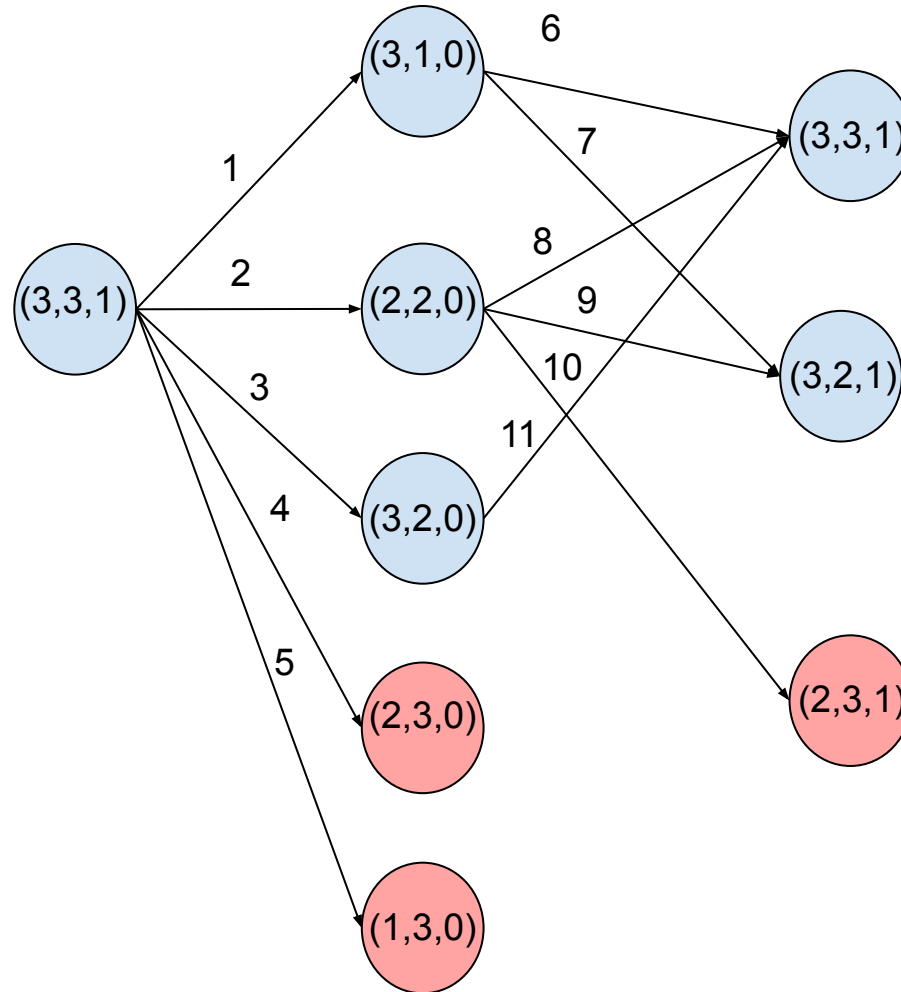
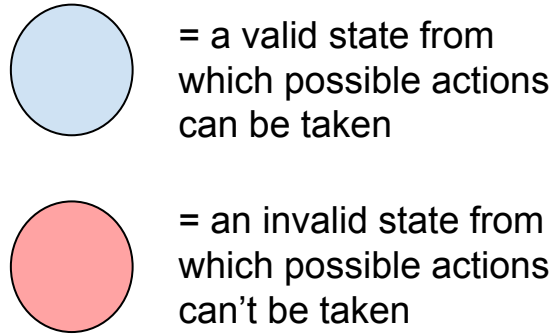


State is represented by the pair  $(x, y, z)$ , where  $x$  = number of chickens on a side,  $y$  = number of foxes on a side,  $z$  is a number either 1 or 0 to indicate whether a boat is on the left hand side of the river



Actions (Represented by numbered arrows pointing to next states):

1. Two foxes go to the other side
2. A fox and a chicken go to the other side
3. A single fox goes to the other side
4. A chicken goes to the other side
5. Two chickens go to the other side
6. Two of the foxes come back
7. A single fox comes back
8. Both a single chicken and a single fox come back
9. A single chicken comes back
10. A single fox comes back
11. A single fox comes back