

# Exercise: Missionaries and Cannibals:

- 1.) Locations :
- Left Bank  $\rightarrow$  LB
  - Boat  $\rightarrow$  B
  - Right Bank  $\rightarrow$  RB

- Protagonist :
- Missionaries  $\rightarrow$   $M_{1..3}$
  - Cannibals  $\rightarrow$   $C_{1..3}$

- Example :
- 1.)  $LB(M_1, M_2, M_3, C_1, C_2, C_3)$
  - 2.)  $LB(M_1, M_2, C_1, C_2) \wedge B(M_3, C_3)$

2.) Initial State :  $LB(M_1, M_2, M_3, C_1, C_2, C_3)$

3.)  $Move(LB(M_1, M_2, M_3, C_1, C_2, C_3), RB(M_1, M_2, M_3, C_1, C_2, C_3))$   
 $= RB(M_1, M_2, M_3, C_1, C_2, C_3)$