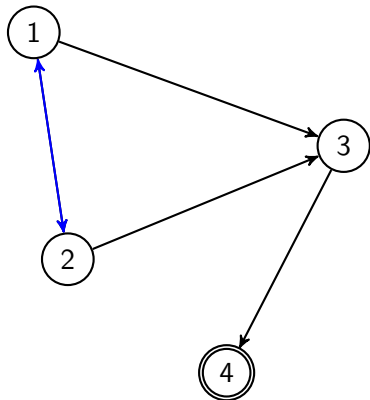
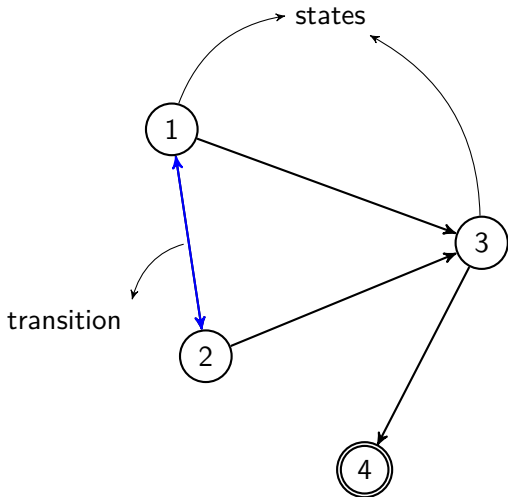


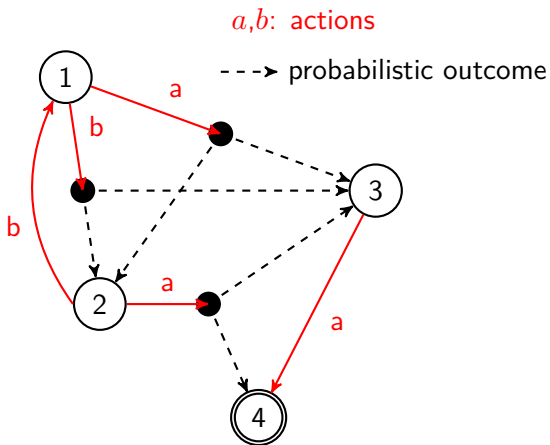
Transition Systems



Transition Systems

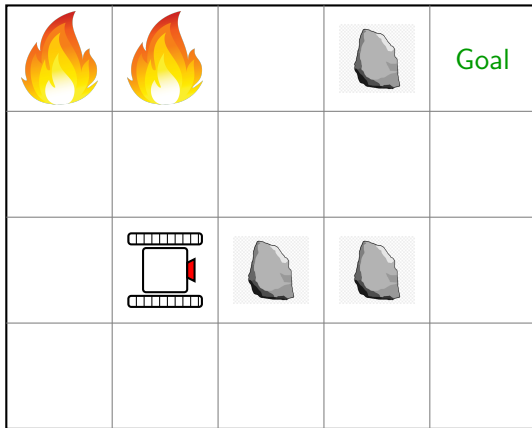


Finite State Markov Decision Process



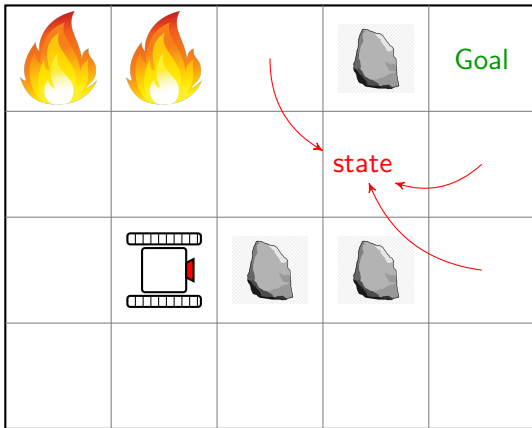
Sequential Decision Making

Basic Formulation: States, Actions, and Rewards.



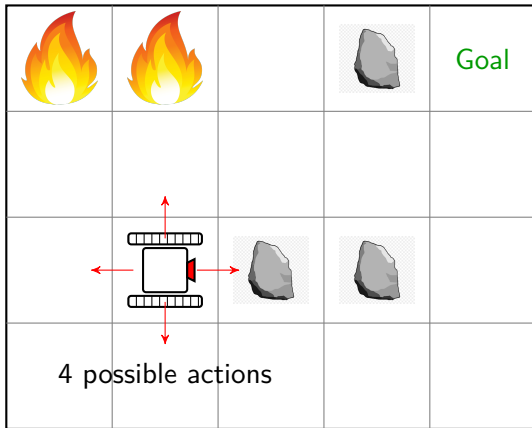
Sequential Decision Making

Basic Formulation: **States**, Actions, and Rewards.









Sequential Decision Making

Basic Formulation: States, **Actions**, and Rewards.









Sequential Decision Making

Basic Formulation: States, Actions, and Rewards.

			 -200	Goal +1000
		 -200	 -200	




















Sequential Decision Making

Basic Formulation: States, Actions, and Rewards. Basic Problem: Identify **best action** in each state to collect rewards.

			 -200	Goal +1000
	→	→	→	↑
		 -200	 -200	




















Sequential Decision Making

Basic Formulation: States, Actions, and Rewards. Basic Problem: Identify **best action** in each state to collect rewards.

				Goal +1000
				
				
				

Sequential Decision Making

Basic Formulation: States, Actions, and Rewards. Basic Problem: Identify **best action** in each state to collect rewards.

				Goal +1000
				
				
				

Possibility of sideways slip **changes** the optimal policy.