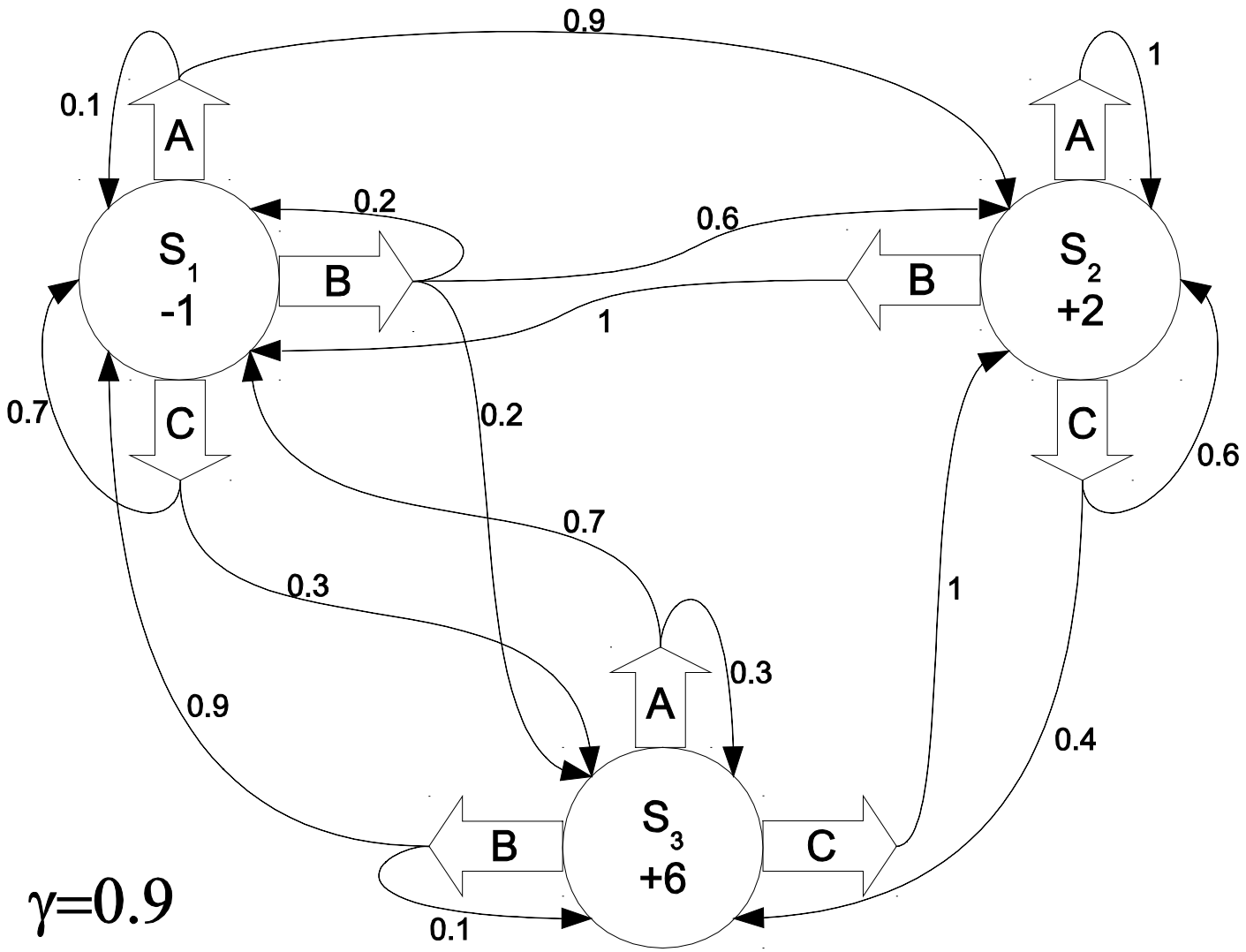
Tutorial week 4

Value iteration in MDP (Bellman's method)



Questions:

- Assume that gamma = 0.9.
- Fill the table by using Bellman's Equation.

$$J^{n+1}(S_i) = \max_k \left[r_i + \gamma \sum_{j=1}^{N} P_{ij}^k J^n(S_j) \right]$$

k	J_K(S1)	J_K(S2)	J_K(S3)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Exercise (Homework):

- Write a program which computes the J values until k = 30.
- Plot each J value with respect to k and describe the result.
- You can use any programming language or software for this task.

Name	Student number