Kamran Nazir Haq
02/25/25
Math-485

Problem 1 Table

	sunny	cloudy	rainy		
sunny	0.33	0.67	0		
cloudy	0.33	0	0.67		
rainy	0.33	0.33	0.33		
	walk	umbrella			
sunny	1	0.67			
cloudy	0.33	0			
rainy	0.33	0.33			
day	observation	?->	sunny	cloudy	rainy
1	walk	v0(?)	0.333	0.333	0.333
		p(W|?)	1	0.33	0.33
		v0(?)*P(W|?)	0.333	0.10989	0.10989
2		v1(S)*P(?|S)		0.22311	0
		v1(C)*P(?|C)		0	0.0736263
	umbrella	v1(R)*P(?|R)		0.0362637	0.0362637
		P(U|?)	0.67	0	0.33
		v2(?) = max(?) * P(U|?)	0	0	0.011967021
3		v2(S)*P(?|S)	0	0	0
		v2(C)*P(?|C)	0	0	0
	walk	v2(R)*P(?|R)	0.00394911693	0.00394911693	0.00394911693
		P(W|?)	1	0.33	0.33
		v2(?) = max(?) * P(W|?)	0.00394911693	0.001303208587	0.001303208587

Problem 2 Table

State	Iteration 1	Iteration 2	Iteration 3
Low	A	A	A
Medium	A	C	C
High	C	C	C