

SHUBHAM GUPTA
180749

Q3 P2

States $S = \{(F, F), (F, G), (G, F), (G, G)\}$

F = first floor
G = ground floor.

initial state
 X_0

	(F, F)	(F, G)	(G, F)	(G, G)
F, F	0	0	0.7	0.6
F, G	0	0	0	1
G, F	1	0	0	0
G, G	0.7	0.3	0	0

expected time spend on G = 0.7s

expected time spend on F = 2s

expected 1 cycle = $2s + 0.7s = 3.2s$ hrs