1.if ( I want to watch a movie == True ) : if have ticket: (scene 2) go to the movie room find seats watching movie print(The movie is"") break;

else: choose ticket seller (scene 1) get tickets gat movie name get room number and seats number go to scene 2

2.1.bring the duck to the east side and back with nothing 2.bring one of wolf and bag of corn come to the east side of river and back with duck 3.leave the duck to the west side and bring the stuff which is left last time to the east side 4.go back to the west side and bring the duck to the east side,done.

1. In goal formulation,we decide which aspects of the world we are interested in,and which can be ignored or abstracted away. Then in problem formulation we decide how to manipulate the important aspects(and ignore the others). If we did problem formulation first we would not know what to include and what to leave out. That said, it can happen that there is a cycle of iterations between goal formulation, problem fomulation, and probem solving until one arrives at a sufficiently uesful and efficient solution

4.1.A B C D E F H G K

2.A B C E F D H I

5.(a) 1--2, 3 2--4, 5 3--6, 7 4--8, 9 5--10, 11 6--12, 13 7--14, 15 (b) breadth first: 1 2 3 4 5 6 7 8 9 10 11 depth-limited: 1 2 4 8 9 5 10 11 iterative deepening: 1; 1 2 3; 1 2 4 5 3 6 7; 1 2 4 8 9 5 10 11 (c) Bidirectional search is useful.The branching factor is 2 in the forward direction; 1 in the reverse direction. (d) Yes. we can start from the goal state and apply the reverse successor action until we reach state 1. (e) The solution can be read off the binary numeral for the goal state.Write the goal number in binary. Since we can only reach positive integers. This binary expansive beings with a 1. From most to least significant bit, skipping to initial 1, go Left to the node 2n if this bit is 0 and go Right to node 2n+1 if it is 1. For example, suppose the goal is 11, which is 10 11 inbinary. The solution is therefore Left, Right, Right.