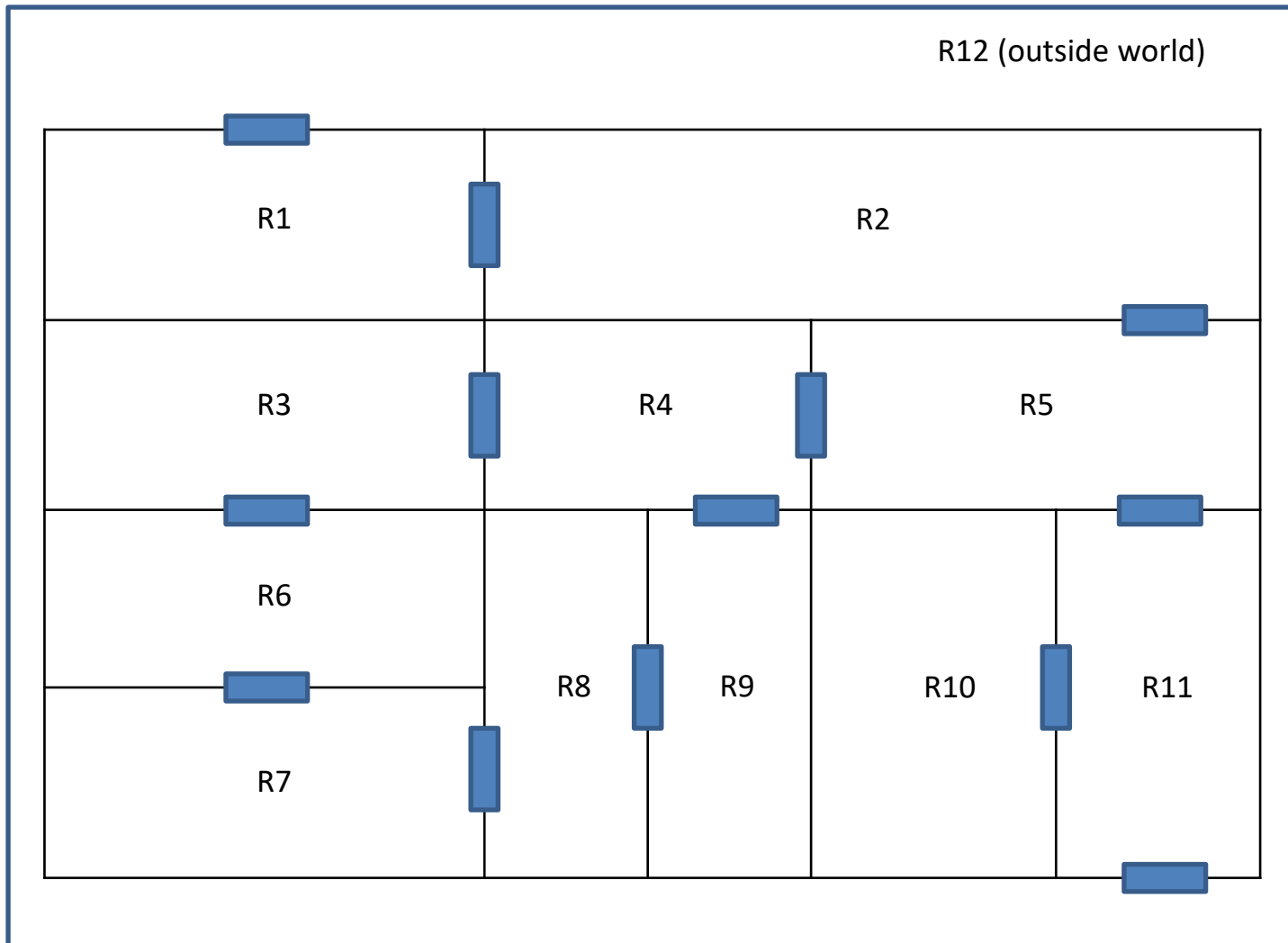
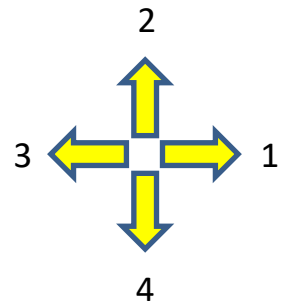


# Problem 1

Design an evacuation route that minimizes the number of visited rooms while trying to get out of the building.



Movements:



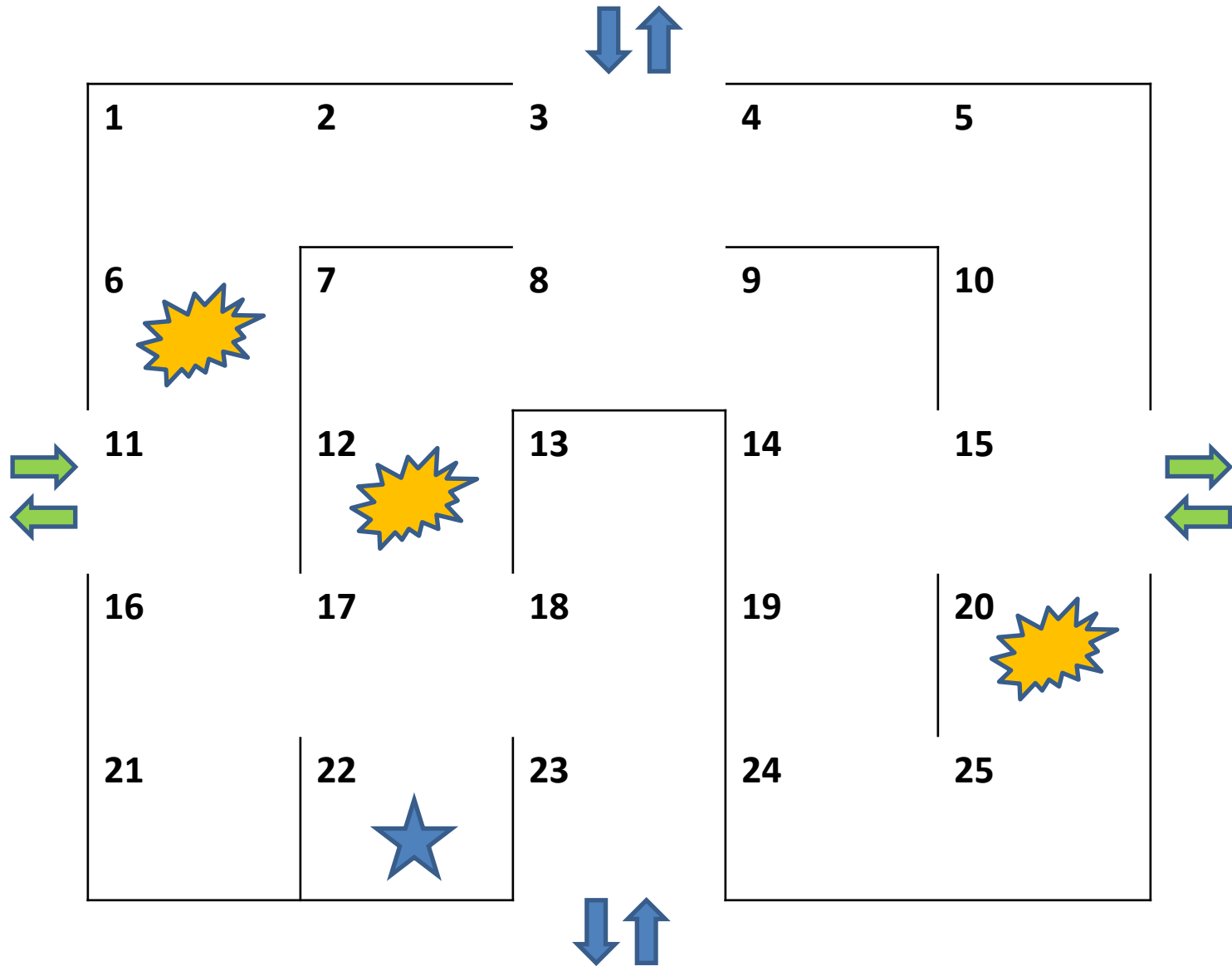
## Problem 2

A man has a goat, a wolf, and a head of cabbage. He comes to a river and must bring these three things across to the other side. The boat can only take the man plus either the goat, wolf, or cabbage. If the cabbage is left with the goat, the goat will eat the cabbage. If the wolf is left with the goat, the goat will be devoured. How can he transport the wolf, goat, and cabbage to the other side?

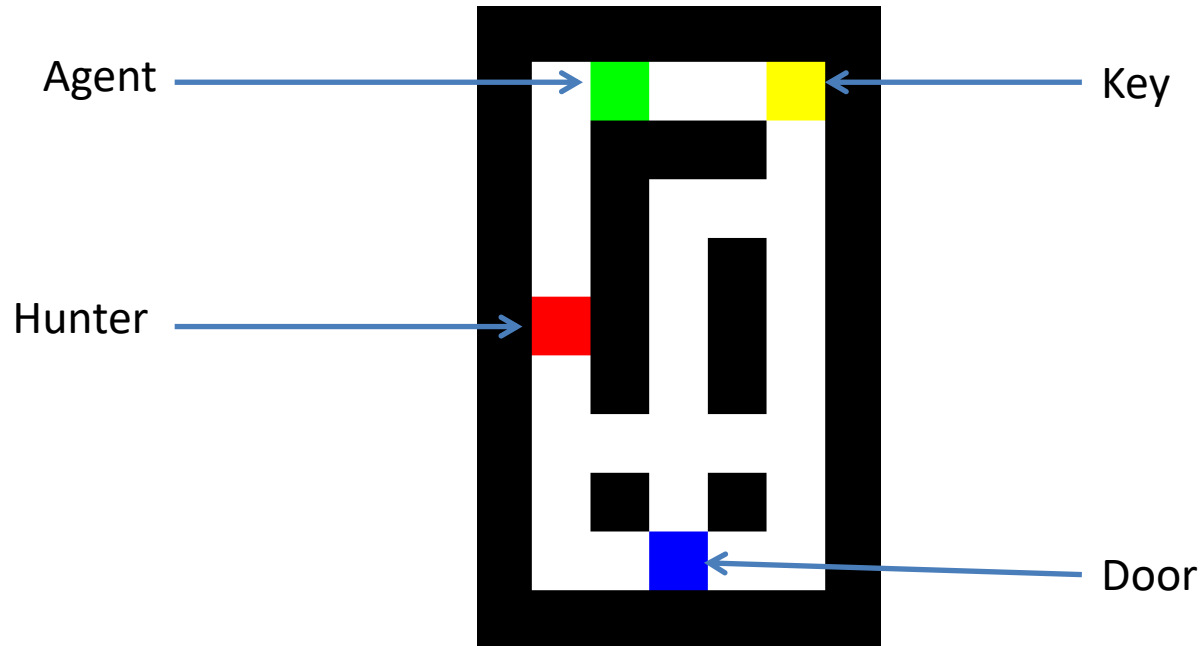


### Problem 3

Find the optimal strategy for an agent to reach the goal tile (marked with a star) avoiding bombs.



## Problem 4



On the course web page you can find a file "RL-labyrinth.R". Your task is to:

- expand (or completely redesign) the state encoding scheme and implement it in the **getStateDesc** function,
- implement meaningful rewards in the **getReward** function.