Practical 4 (weeks 7 - 8)

Theory Questions

1. Symbolize the following proposition and discuss the truth.

1.x(P(x)⇒B(x)),false

2. x(P(x)∧B(x)),true

3. ¯x(P(x)∧B(x)),true

4. ¯x(P(x)!⇒B(x)),true

2.

1. Tautology

2. Contradiction

3. None

3.

FTTTF

4.

(¯P∨S∨Q)∧(¯P∨S∨¯R)

Programming Exercises

2.

	Minimax Ghost	Random Ghost
Minimax Pacman	0/5 −279.6	2/5 250.6
Expectimax Pacman	0/5 29.8	1/5 20

3. The two minimaxGhosts managed to trap the Pacman into the road without exit. The MinimaxPacman should avoid this from happening, implement the correct assumption of the ghosts behavior. However, the given algorithm of minimaxPacman may have something wrong due to the bad performance to the RandomGhost, so it didn't perform well while versus both kind of ghost.

4. If depth is enough, after the first ghost moving, the second ghost can know how the Pacman avoid striking the first ghost.