

1. As a player, I want Pacman to be in the middle of the board of size $W \times H^i$ (where W = columns and H = rows)

Given	When	Then
A board	Size is $W=3$, $H=4$	The Pacman is at column 1, row 2 (counting top-to-bottom)
A board	Size is $W=6$, $H=6$	The Pacman is at column 3 row 3

2. As a player, I want to change Pacman's orientation

Given	When	Then
A board	Size is $W=3$, $H=4$	Pacman looks up
A board with Pacman looking up	Player sends 'turn left'	Pacman looks left
A board with Pacman looking up	Player sends 'turn right'	Pacman looks right
A board with Pacman looking up	Player sends 'turn down'	Pacman looks down
A board with Pacman looking up	Player sends 'turn up'	Pacman looks up

3. As a player, I want Pacman to move in the direction I specified

Given	When	Then
A 3X4 board with Pacman looking up, at 1,2	Payer sends 'turn left' and then a tick happens	The Pacman is at 0,2
A 3X4 board with Pacman looking up, at 1,2	A tick happens	The Pacman is at 1,1; Pacman looks up

4. As a player, I want Pacman to wrap around the edges

Given	When	Then
A 3x4 board with Pacman looking up, at 1,0	A tick happens	Pacman is at 1,3. Pacman looks up

5. As a player, I want to **see** the board displayed when the game starts. A tick happens every half a second.

Given	When	Then
A 3X4 board with Pacman looking up, at 1,2	When half a second passes	The Pacman is at 1,1

6. As a player, I want to **see** Pacman change direction when using arrow keys.

Given	When	Then
A 3x4 board with Pacman looking up, at 1,2	When half a second passes	Pacman is at 1,1
A 3x4 board with Pacman looking up, at 1,1	I press arrow left	Pacman looks left
A 3x4 board with Pacman looking up, at 1,1	A half a second passes	Pacman is at 0,1

7. As a player, I want Pacman to eat pellets as he moves.

Given	When	Then
A 3x4 board filled with food pellets, except for Pacman's position, Pacman is at 1,2	When 1 second passes (2 ticks)	Pacman is at 1,0 No pellet is at 1,2 No pellet is at 1,1

8. As a player, I want the score to go up as Pacman eats pellets.
I want the score to go up by 10 for each pellet.

Given	When	Then
An initial board filled with pellets	Player does not send any 'turn' event.	The score is 0.
An initial board filled with pellets	When half a second passes and Pacman lands on a pellet	The score is 10.
An initial board filled with pellets	Pacman moves once up (and lands on a pellet) then back down (no pellet).	The score is 10.

9. As a player, I want to see a cherry on the board. The value is 200 points.
I want the cherry to disappear (and the score to increase) when Pacman reaches it; the cherry also disappears if Pacman doesn't eat it after 10 ticks.

Given	When	Then
An 3x4 board with a cherry at 1,1 and Pacman at 1,2	When half a second passes	The score is 200. The cherry is gone.
An 3x12 board with a cherry at 1,1 and Pacman at 1,11	When 5 seconds passes (10 ticks)	The score is 0. The cherry is gone.

10. As a player I want Pacman to stop when hitting a wall.

Given	When	Then
An 3x4 board with a wall at (1,1), Pacman at 1,3, looking up	When 1 second passes (2 ticks)	Pacman is at 1,2

ⁱ The stories assume that the board first column/row is 0 and the coordinates 0x0 are at the top left corner