Test Construction and get methods	input	expected value
test get name	PlayerImpl("Jack")	Jack
test report Description & addTreasure	PlayerImpl("Jack"); new Treasure(Diamonds)	Jack have treasure: 1 Diamonds, 0 rubies, 0 sapphires.
test get player location	PlayerImpl("Jack"); new Location(2,2)	Jack is at (2,2)
test get Treasure	PlayerImpl("Jack"); addTreasure(Rubies);getTreasure	0 Diamonds, 1 rubies, 0 sapphires.

Test Construction and methods	input	expected value
test out of bound new dungeon	DungeonImpl(-12,-9,"nonwrapping");	throw illeagalArgument exception
test get Treasure percent	DungeonImpl(7,8,"nonwrapping"); setTreasurePercent(20);	"20"
get Cave Info	DungeonImpl(7,8,"nonwrapping");setTreasurePercent(20);assignTreasure();	The cave at (1,0) have 1 Diamonds, 1 rubies, 0 sapphirs. The cave at (3,3) have 0 Diamonds, 1 rubies, 0 sapphirs. The cave at (3,5) have 0 Diamonds, 0 rubies, 1 sapphirs….
test Wrapping	DungeonImpl(7,8,"Wrapping");	"Wrapping"
test NonWrapping	DungeonImpl(7,8,"Nonwrapping");	"Nonwrapping"
test arrows location	DungeonImpl(7,8,"Nonwrapping"); assignArrows()	number of arrows should be twice of numOfMonsters.
test monsters location	DungeonImpl(7,8,"Nonwrapping"); assignMonsters()	number of monsters = (Arraylist)monsters.size() "Monster A are in (2,2), Monster B are in (4,5)…"

Test Construction and methods	input	expected value
test new Game and player start location	PlayerImpl("Jack");GameImpl(player); getPlayerStartLocation	The player start at (2,3)
test player end location	PlayerImpl("Jack");GameImpl(player); getPlayerEndLocation	The player ends at (5,6)
test player move	PlayerImpl("Jack");GameImpl(player);playerMove(South)	
test player current location	PlayerImpl("Jack");GameImpl(player); getPlayerCurrentLocation	The player current at (2,4)
test shoot one arrow at monster	GameImpl(7,8,"Nonwrapping"); PlayerImpl("Jack"); shootArrow(North, 3); monster.getHealth()	half of the original health
test shoot two arrow at monster	GameImpl(7,8,"Nonwrapping"); PlayerImpl("Jack"); shootArrow(North, 3); shootArrow(North, 3); monster.getHealth(); monster.isAlive	health is zero. isAlive = false

test miss shoot arrow	GameImpl(7,8,"Nonwrapping"); PlayerImpl("Jack"); shootArrow(North, 1); monster.getHealth();	health is full health.
test detect Monster	GameImpl(7,8,"Nonwrapping"); PlayerImpl("Jack"); detectMonster();	"Monster is in North, distance 2"

testTreasure

Test Construction and methods	input	expected value
test new Treasure and get Type	new TreasureImpl(Diamond); getTreasureType	"Diamonds"
test wrong Treasure	new TreasureImpl(Apple);	throw illeagalArgument exception

testController

Test Construction and methods	input	expected value
test move	playGame()	"move"
test pick	playGame()	"pick"
test shoot	playGame()	"shoot"
tets shoot direction north	playGame()	"shoot North, distance 2"

testMonster

Test Construction and methods	input	expected value
tets report monster location	Monster("Hulk")	"Hulk is in (2,2)"