

M5 Testing Deliverable

These tests cover common use cases for the tower combat. These cases were chosen for coverage as a random example of what a path and enemy configuration would probably look like, along with general tests of uniqueness between types of enemy and tower. All new tests were found in AttackTest.java.

calculateRange – Tests calculating the distance of a tower to a random point. Verified by checking for equality of a sample tower's distance with its known distance.

getRangeTest – Tests retrieving the current range of a tower. Verified by checking the received value against the known range value for the tower.

getCloseTargets – Tests finding close-by targets. Verified by comparing the found targets with the close-by enemies.

getFarTargets – Tests finding far away targets. Verified by comparing the found targets with the far away enemies.

enemyTakeDamage – Tests damaging enemies. Verified by attacking an enemy and comparing its new health value to the expected value.

testAttack – Tests towers attacking enemies. Verified by using a tower to attack an enemy and noticing the change in the enemy's health.

getEnemyHealths – Tests for a health difference in enemy types. Verified by initializing two types of enemy and comparing their healths.

getEnemyDamages – Tests for a damage difference in enemy types. Verified by initializing two types of enemy and comparing their damages.

getTowerRanges - Tests for a range difference in tower types. Verified by initializing two types of tower and comparing their ranges.

getTowerDamages - Tests for a base damage difference in tower types. Verified by initializing two types of tower and comparing their base damages.