

Dungeon Testing Plan

1. Test for non-null values.
2. Test for a single player instance
3. Test for treasure is at least 20%, if not more (treasure locations \geq 20% of locations/nodes in the dungeon).
4. Test for entrance numbers, at least 1, no more than 4.
5. Test for tunnel only has 2 entrances.
6. Test for cave having 1, 3, or 4 entrances.
7. Test that all command line arguments are read properly.
8. Test for base case of interconnectivity of 0 after running Kruskal's.
9. Test for valid generated starting location.
10. Test for valid generated ending location.
11. Test for neighbor list pre-Kruskal's.
12. Test for a location list with the number of nodes being equal to the requested number of rows multiplied by the number of columns.
13. Test for each location in the list knowing its own location.
14. Test for a location having treasure and if it does have treasure that it might have multiple instances of treasure.
15. Test for a player to be created at and with the proper start location.
16. Test for a player to start and empty treasure bag/list.
17. Test for a player able to move north.
18. Test for a player able to move south.
19. Test for a player able to move east.
20. Test for a player able to move west.
21. Test for tunnel only having 2 members of its neighbor list.
22. Test for cave having 1, 3, or 4 members of its neighbor list.
23. Test for tunnels not having treasure in them.
24. Test for players picking up treasure that they can only do so at their location not others.
25. Test for a player to only move in directions where this is an available route.
26. Test for interconnectivity of 0 for non-wrapping and wrapping dungeon.
27. Test for interconnectivity of 1 for non-wrapping and wrapping dungeon.
28. Test for random number repeat generation using a seed
29. Test for a random list of generated numbers being repeatable using a seed

- 30.** Test for generated numbers less than the minimum passed into the random number generator.
- 31.** Test for generated numbers greater than the maximum passed into the random number generator.
- 32.** Test for generating at least a ruby, diamond, sapphire.
- 33.** Test for the game ending when the player reaches the end point.
- 34.** Test for proper number of monsters created
- 35.** Test for proper number of locations having arrows
- 36.** Test for proper number of caves having treasure
- 37.** Test for no tunnels having treasure.
- 38.** Test for smell working with 1 monster 2 spaces away and 1 space away
- 39.** Test for player getting eaten by a monster with full health
- 40.** Test for player escaping half health monster
- 41.** Test for player discovering body of dead monster.
- 42.** Test for player able to shoot
- 43.** Test for shot being able to hit the monster both once and twice
- 44.** Test monster constructor for not enough monsters
- 45.** Test for too many monsters and not enough caves
- 46.** Test for the player having the ability to pick up arrows.
- 47.** Test for the player having the ability to pick up treasure.
- 48.** Test for the player having the ability to pick up arrows and treasure at the same time.
- 49.** Test for monster's health deducted after being hit.
- 50.** Test for Monster dying after being hit twice.
- 51.** Test for arrow missing.