1. i) 0, to see if we can use boundary data, 100 to see if we can use boundary data, -1 because it is theoretically an invalid input, 101 because it is theoretically an invalid input, 36 normal value to see if the program works or not.

ii) they mostly do, however some other data types could be used to see if they throw errors, such as strings/characters, and symbols like > or !, as they should not be valid either.

|  |  |  |  |
| --- | --- | --- | --- |
| i | Sentence.char(i) | gapcount | Previouscharspace |
| 1 | G | 0 | False |
| 2 | O |  |  |
| 3 | O |  |  |
| 4 | D |  |  |
| 5 | ‘ ‘ | 1 | True |
| 6 | ‘ ‘ |  |  |
| 7 | T |  | false |
| 8 | O |  |  |
| 9 | ‘ ‘ | 2 | True |
| 10 | G |  | False |
| 11 | O |  |  |

1. i)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| test | Test data | Reason for test | Expected result | Actual result |
| 1 | -7 | Boundary data | Solid | Solid |
| 2 | -6 | boundary data | Liquid | Not found |
| 3 | 30 | Valid data | liquid | liquid |
| 4 | 63 | Valid data | gas | Gas |
| 5 | -436 | Invalid data | Not found | Not found |
| 6 | -87653 | Invalid data | Not found | Not found |
| 7 | cheese | Invalid data type | An error | An error |

ii)test 2 gives an unexpected result

iii)line 6 should be >=-6 and <=59