|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Input | | | Expected output | Output | Comment |
| -1 | -1 | -1 | Invalid | Invalid | Checking to see if invalid entries are picked up, all are equilateral in order to just check the negative check, this will narrow down the possible problems if I do find an unexpected output, also trying a single negative value in each slot. It should still return an invalid result. |
| -1 | 1 | 1 | Invalid | Invalid |
| 1 | -1 | 1 | Invalid | Invalid |
| 1 | 1 | -1 | Invalid | Invalid |
| -1 | -1 | 1 | Invalid | Invalid |
| 1 | -1 | -1 | Invalid | Invalid |
| -1 | 1 | -1 | Invalid | Invalid |
| -3 | -4 | -5 | Invalid | Invalid | Invalid right angle, although this satisfies the right angle check it gets caught |
| -1 | -2 | -3 | Invalid | Invalid | Invalid scalene |
| -1 | -1 | -2 | Invalid | Invalid | Invalid isosceles |
| 0 | 0 | 0 | Invalid | Invalid | Zero outputs are also accounted for |
| 0 | 1 | 0 | Invalid | Invalid |
| 1 | 0 | 0 | Invalid | Invalid |
| 0 | 0 | 1 | Invalid | Invalid |
| 1 | 1 | 0 | Invalid | Invalid |
| 0 | 1 | 1 | Invalid | Invalid |
| 1 | 0 | 1 | Invalid | Invalid |
| 1 | 1 | 3 | Impossible | Impossible | Checking impossible triangles, with the large vale in each slot |
| 1 | 3 | 1 | Impossible | Impossible |
| 3 | 1 | 1 | Impossible | Impossible |
| 1 | 1 | 1 | Equilateral | Equilateral | Checking the equilateral check works |
| 2 | 2 | 2 | Equilateral | Equilateral |
| 2E9 | 2E9 | 2E9 | Equilateral | Equilateral | I inputted here the maximum value for int, 2,147,483,647 for each input. If this input hits the impossible check first it will return as impossible, as the inputs lie out of bounds and therefore meet the requirements for that block of code to execute. However I placed the equilateral check above. |
| 3 | 4 | 5 | Right angle | Right angle | Testing if the right angle check works, regardless of which side is the hypotenuse. |
| 3 | 5 | 4 | Right angle | Right angle |
| 4 | 3 | 5 | Right angle | Right angle |
| 4 | 5 | 3 | Right angle | Right angle |
| 5 | 3 | 4 | Right angle | Right angle |
| 5 | 4 | 3 | Right angle | Right angle |
| 50 | 40 | 30 | Right angle | Right angle |
| 5E8 | 4E8 | 3E8 | Right angle | Right angle | Because of the way Java handles numbers that go outside of the boundaries of int this can be handled, despite the squares of these numbers going well beyond the container’s limits. I’m not really sure how Java manages this. But it is very impressive. |
| 3 | 3 | 4 | Isosceles | Isosceles | Checking Isosceles, not expecting problems. |
| 3 | 4 | 3 | Isosceles | Isosceles |
| 4 | 3 | 3 | Isosceles | Isosceles |
| 4E8 | 3E8 | 3E8 | Isosceles | Isosceles |
| 2 | 3 | 4 | Scalene | Scalene | Testing the scalene tester, if works regardless of the order |
| 2 | 4 | 3 | Scalene | Scalene |
| 3 | 4 | 2 | Scalene | Scalene |
| 3 | 2 | 4 | Scalene | Scalene |
| 4 | 3 | 2 | Scalene | Scalene |
| 4 | 2 | 3 | Scalene | Scalene |
| a | B3 | 1 | Bad input | Bad input | Checking string, char and double inputs, along with scientific notation, that shouldn’t be accepted as it’s an integer value being read, rather than a double. |
| 1 | 1 | ! | Bad Input | Bad input |
| 1E1 | 1E1 | 1E1 | Bad input | Bad input |
| 1.0 | 1.0 | 1.0 | Bad input | Bad input |
| 1 1 1 |  |  | Bad input | Equilateral | Unlike my last program, whitespace doesn’t immediately break it and in fact, everything seems to work just fine. |
| 3 4 5 |  |  | Right angle | Right angle |
| -1 1 1 |  |  | Invalid | Invalid |
| 3 2 4 |  |  | Scalene | Scalene |
| 3 3 4 |  |  | Isosceles | Isosceles |
| 1 | 1 | 1 | Equilateral | Equilateral |
| 1 | 1 1 |  | Equilateral | Equilateral |
| 1 1 1 4 4 | | | Equilateral | Equilateral | Trying valid inputs with invalid ones after or mixed in, the invalid ones afterwards don’t matter as they are never read by the program. However placing an invalid input in the middle will produce an error due to the program attempting to place it into an int container. |
| 3 4 5 2 2 | | | Right Angle | Right angle |
| 4 5 6 66 | | | Scalene | Scalene |
| 3 4 3 3 434 2 | | | Isosceles | Isosceles |
| 5 4 3 534 | | | Right angle | Right angle |
| 3 f 4 5 | | | Bad input | Bad input |
| 3 4 5 dsfargeg | | | Right angle | Right angle |
| 3 4 5 2E10 | | | Right angle | Right angle |