|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Input | Expected | | Output | | Comments |
| Surface Area | Volume | Surface Area | Volume |
| 1 | 1 | 6 | 1 | 6 | Standard inputs to see if the calculations are correct. |
| 2 | 8 | 24 | 8 | 24 |
| 0 | 0 | 0 | 0 | 0 |
| -2 | 8 | 24 | 8 | 24 | Checking the handling of negatives |
| 1E4 | 1E12 | 6E8 | 1E12 | 6E8 | Checking if standard form is accepted |
| 1E500 | Error | | ∞ | ∞ | Checking the outcome when using values larger than what a double can hold. |
| -1E500 | Error | | ∞ | ∞ |
| string | Error | | Error | Error | Checking what happens when a string is entered |
| $ | Error | | Error | Error | Checking for character inputs |
| 1.7E307 | Error | | ∞ | ∞ | Checking the largest possible value of double, this makes the opening text in my program incorrect. |
| 2^2 | Error | | Error | Error | Seeing if operators work |
| 2\*1 | Error | | Error | Error |
| 2/1 | Error | | Error | Error |
| 1+1 | Error | | Error | Error |
| 3-1 | Error | | Error | Error |
| abc2rty | Error | | Error | Error | Checking whether numbers will be pulled from strings. |
| (Blank) | Nothing | | Nothing | Nothing | Seeing the outcome from blank inputs |
| 0.2 | 8E-3 | 0.24 | 0.24000000000000005 | 0.008000000000000002 | Checking the behaviour of small values, the outputs are incorrect. I believe this is to do with rounding double values, a possible fix would be to multiply up the double and parse into an integer. |
| 0.02 | 8E-6 | 2.4E-3 | 0.0024000000000000002 | 8.000000000000001E-6 |
| 1E-500 | 0 | 0 | 0 | 0 | Checking an extremely small value, it rounds down to zero. |