|  |  |  |  |
| --- | --- | --- | --- |
| Expression | Expected Value | Calculated Value | Reason for Calculated Value |
| math.sqrt(9) | 3.0 | 3.0 | Values are the same |
| math.sqrt(-9) | 3*i* | Value error | The square root of a real number cannot be a negative for that python returns the error |
| math.floor(3.7) | 3 | 3 | Values are the same |
| math.ceil(3.7) | 4 | 4 | Values are the same |
| math.ceil(-3.7) | -3 | -3 | Values are the same |
| math.copysign(2,-3.7) | -2.0 | -2.0 | Values are the same |
| math.trunc(3.7) | 3 | 3 | Values are the same |
| math.trunc(-3.7) | -3 | -3 | Values are the same |
| math.pi | 3.142 | 3.141592653589793 | The calculated value has more dps for an increased degree of accuracy |
| math.cos(math.pi) | -1.0 | -1.0 | Values are the same |

In addition to the above expressions, when the following code is typed in the python interactive mode,

**math.pi = 3**

What happens is that, the interpreter returns a syntax error,

Because the expression can not contain assignment.

**math.pi**

What happens is that, the interpreter returns the value for “*pi”*

Because the function is already included in the math module if the math module is first imported.