

**EXERCISE 4.**

Expression	Expected value	Calculated value	Reason for calculated value
math.sqrt(9)	3	3.0	3.0 is the square root of 9. Python interpreter gives the answer as a float
math.sqrt(-9)	3i	Value error	It requires the import of cmath in order to compute complex numbers(math.sqrt cannot be used for complex numbers)
math.floor(3.7)	3	3	3 is value of 3.7 rounded down to the nearest whole number
math.ceil(3.7)	4	4	4 is value of 3.7 rounded up to the nearest whole number
math.ceil(-3.7)	-3	-3	-3 is value of -3.7 rounded up to the nearest whole number
math.copysign(2, - 3.7)	-2	-2.0	math.copysign returns a float with the magnitude (absolute value) of <i>the first value</i> but the sign of <i>the second value</i> .
math.trunc(3.7)	3	3	math.trunc returns an integer by eliminating/truncating and digits after the decimal point
math.trunc(-3.7)	-3	-3	-3 is the truncated value of -3.7 since the function returns an integer by eliminating/truncating and digits after the decimal point
math.pi	3.142	3.141592653589793	The function outputs the value of pi
math.cos(math.pi)	-1	-1.0	Return the cosine of <i>the value of pi</i> , in radians which is -1.0

For math.pi = 3

math.returns the value 3

This is because 3 is assigned to math.pi and that is what the interpreter returns.