

## trig.py/trigMicro.py

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This program was written in CPython 3.10.2(trig.py) but also an edition compatible with MicroPython 1.9.4(trigMicro.py). The lack of module support in MicroPython compared to CPython made it necessary to modify the program to convert to degrees manually. This program is navigated by a number-based menu because the program was designed with the Casio fx-CG50 in mind where a keypad is the primary input. The program was made to simplify trigonometric actions of finding angels and sides within a triangle.

### Variables

#### **num1**

input value (angle, hyp, adj, or opp)

#### **num2**

input value (angle, hyp, adj, or opp)

#### **x**

output value

#### **mode**

used to set sin(), cos(), or tan()

#### **XLoc**

sets location of x on formula

No Functions

Bugs: Strike though if resolved

~~Issue: Trig calculation are in correct trig.py~~

~~Cause: Python uses radian for trig functions~~

~~Solution: Use conversion to degree~~

~~Issue: trig.py won't import and run on Casio fx-CG50 with AttributeError on 'math' for 'degree' and 'radians'. trig.py~~

~~Cause: Lack of library support for 'math' on MicroPython 1.9.4 for math module.~~

~~Solution: Multiply or divide by (180/pi) manually on new edition for MicroPython(trigMirco.py).~~

Issue: Only way to quit is to cause an error and no error handling.

Cause: Lack of error handling.

Solution: Add error handling and quit the program nicely.