

Homework 3

Colin Gibbons-Fly

Exercise 15: Develop an algorithm that takes in three real numbers a,b and c with $a \neq 0$ and determines the number of distinct real roots of the quadratic polynomial.

```
##Exercise 15

## Initiliaze variables a, b and c
a=3
b=8
c=4

## Find the amount of real roots, assign that value to real_roots_count
if (b**2) - (4*a*c) > 0:
    real_roots_count = 2
elif (b**2) - (4*a*c) == 0:
    real_roots_count = 1
else:
    real_roots_count = 0

## Print out the result of real_roots_count
print(real_roots_count)
```