

# QND Computer Science Day 3

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# Agenda

- Recap
- Basic Math
- Funny Business
- Project

# Recap

- Strings
- `print(string)`
- `readLine()!`
- `let` variables

# What does this do?

```
let a = 5
let b = 4

let result = a + b

print(result)
```

# The Square Calculator

- Ask the user for a number
- Square it and print the result

```
print("Enter a number to square: ")  
let number = readLine()!  
  
print(number * number)
```

# Types

- Strings
  - Sequence of characters
  - Can be empty
  - Put in quotes
  - Can be combined with other strings
- Integers
  - A number with no decimal

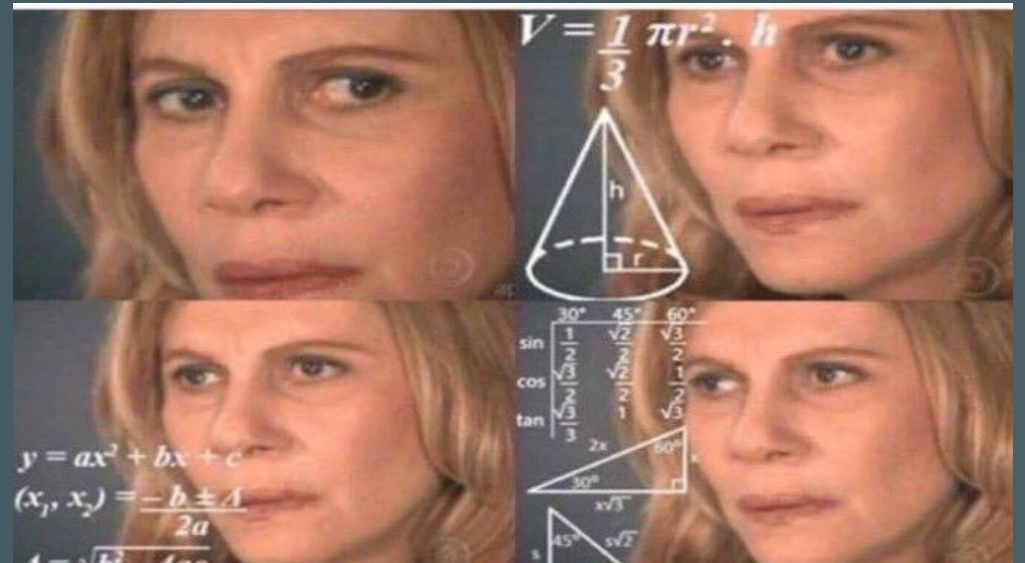
# The Square Calculator (fixed)

```
print("Enter a number to square: ")  
let numberString = readLine()!  
let number = Int(numberString)!  
  
print(number * number)
```

# Decimals

- What will this do?

```
let a = 0.1  
let b = 0.1  
print(a + b)
```





# This has caused a lot of problems

- Banks deal with decimals a lot!

```
let myBalance = 200.20
let purchasePrice = 100.20
let finalBalance = myBalance - purchasePrice
print(finalBalance)
```

# Types

- Strings
- Ints
- Floats
  - Store decimal values
  - Imprecise (be careful!)

# Project

Make a **calculator**

Use `readLine()` twice to get two integers

Compute the sum, print it out!

# Extra Challenges

1. Also print the difference (-)
2. Also print the product (\*)
3. Also print the quotient (/)
4. Use `Floats` instead of ints
5. What happens if we divide by zero?