

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

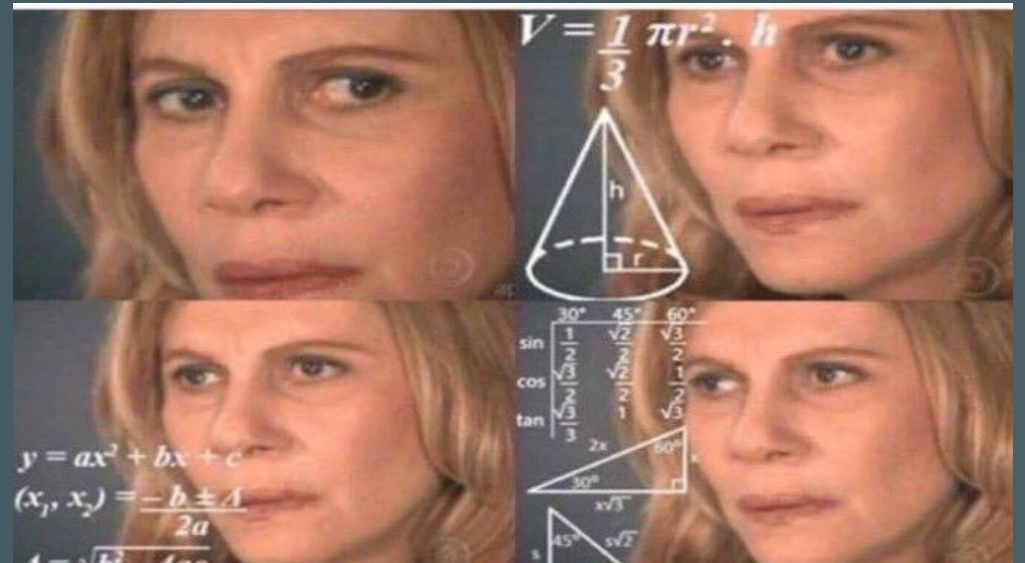
The Square Calculator (fixed)

```
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?