



COMP1511

Week 2 Tutorial

KAHOOT TIME!

BITS OF WHAT!?



BITS

Binary digITS --> bits
2 states/letter (on or off)

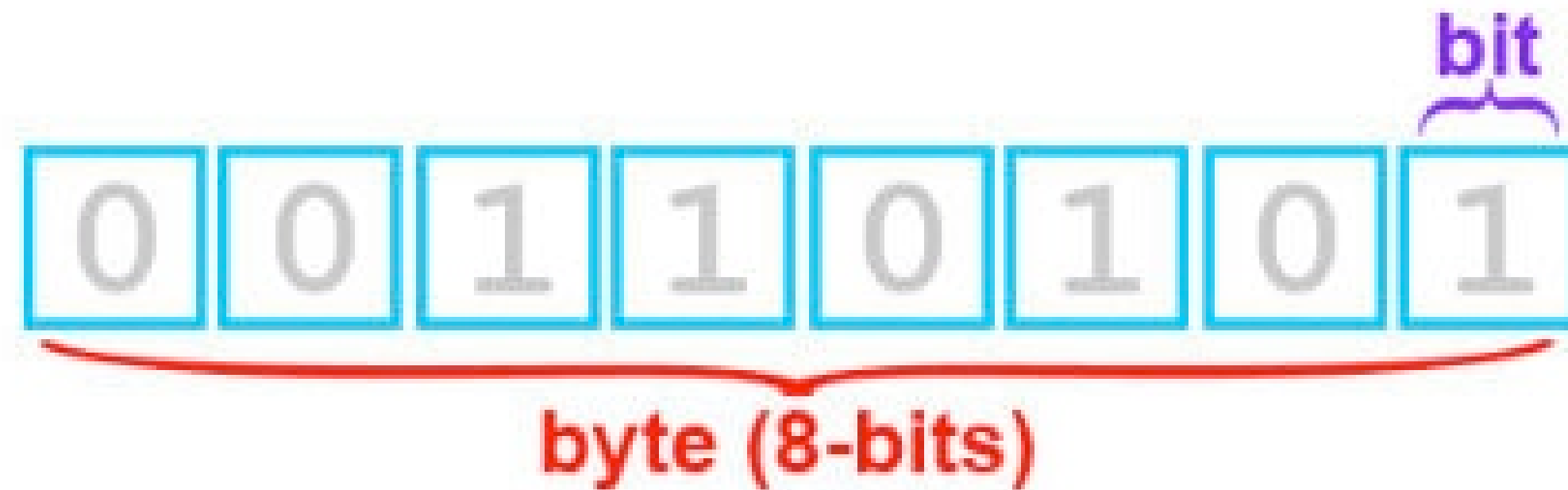


BYTES

letters --> words

8 'letter' words = bytes

possible values?





VARIABLES

VARIABLES

210

int

2.10384

double

what are they, initialise, assign, print

LET'S TALK ABOUT CONSTANTS

- fixed values
- reusable
- make our code more readable
- makin' a constant



QUESTIONS?

CONDITIONS

CONDITIONS IN C

- defines which way to go
- can have multiple options

```
if (condition){
```

```
    // things that are indented
```

```
} else if (condition){
```

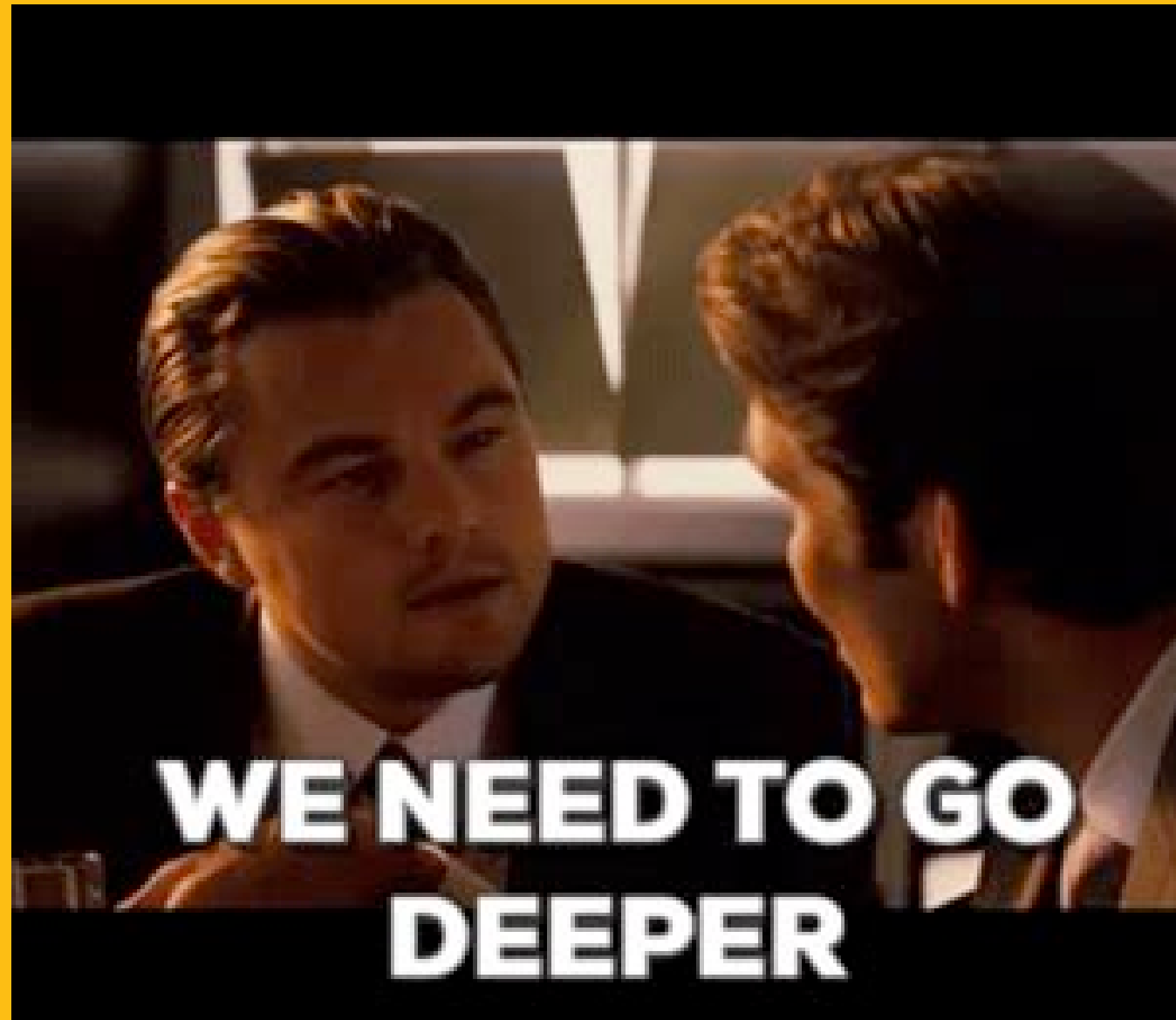
```
    // things that are indented
```

```
} else {
```

```
    // things that are indented
```

```
}
```





- comparing things (logical operators)
- chaining our comparisons

20

COMPARISONS

>

<

==

>=

<=

!=

CHAINING

&&

||

!



SCANNING!

SCANNING

- Read input in from the user
- what's with the '&'?



ARITHMETIC

QUICK MATHS!

+

-

/

*

%

$1/2 * 500$

$1/2.0 * 500$

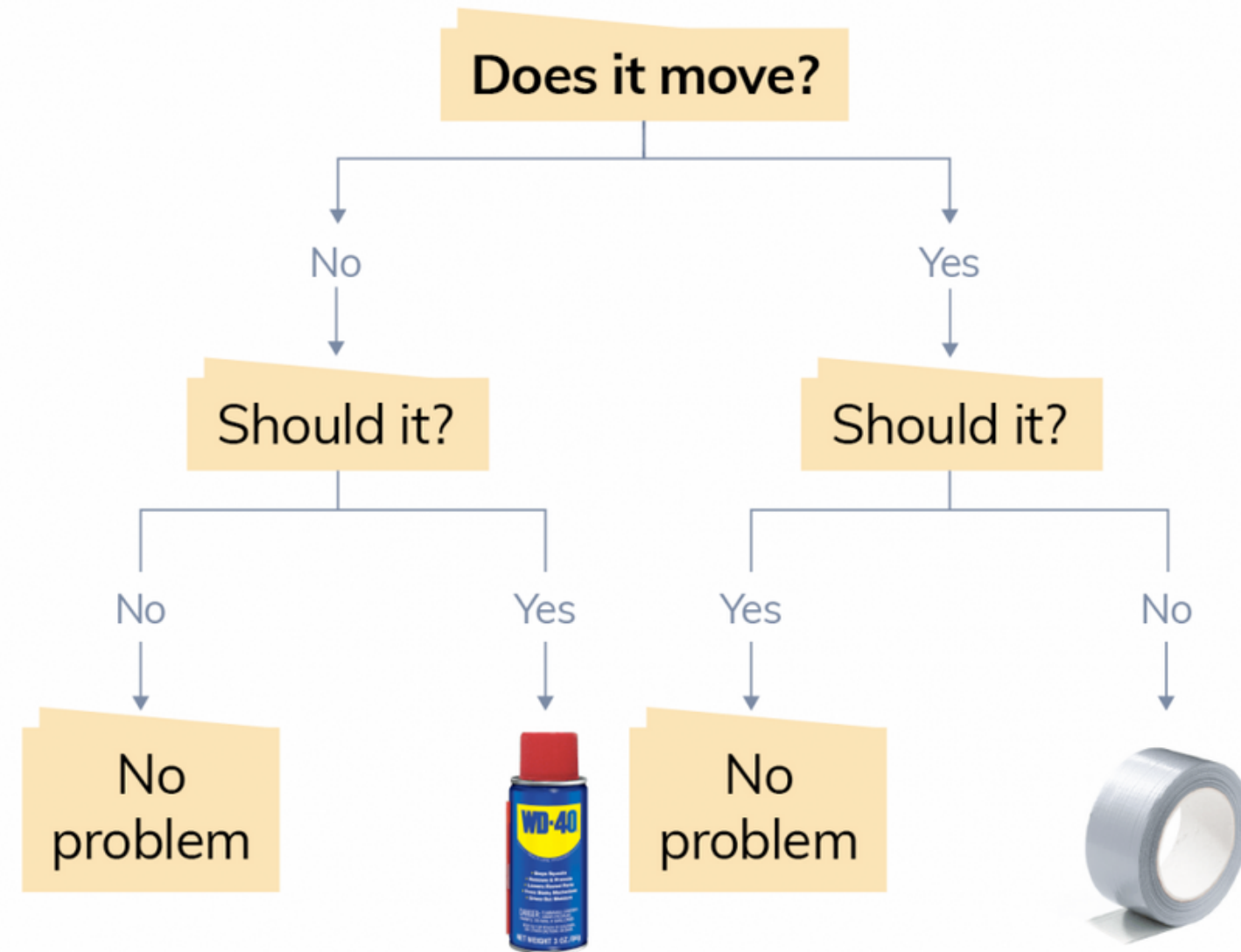
$(17/5) * 5 + (17 \% 5)$

$(12 - 17) \% 6 - 4$

QUESTIONS?

LET'S WRITE SOME CODE!

Engineering Flowchart



```
require File.expand_path("../..", __FILE__)
require "rails_helper"

# Prevent database truncation if the environment is production
abort("The Rails environment is running in production mode!")

require "spec_helper"
require "rspec/rails"

# Add additional requires below this line. Examples are given for your reference:
# require "active_record/fixtures"
# require "capybara/rspec"
# require "capybara/rails"

Capybara.javascript_driver = :webkit
Category.delete_all; Category.create!
Shoulda::Matchers.configure do |config|
  config.integrate do |with|
    with.test_framework :rspec
    with.library :rails
  end
end

# Add additional requires below this line. Examples are given for your reference:
# Requires supporting ruby files with spec/ support/ and its subdirectories.
# spec/support/ and its subdirectories. These files will be loaded by default.
# run as spec files by default. This will be required by default.
# in _spec.rb will both be required and loaded.
# run twice. It is recommended that you do not use this option.
# end with _spec.rb. You can configure this option on the command line.
# option on the command line.

No results found for 'mongoid'
```

LEAP YEAR LOGIC

How can we determine if a given year is a leap year?

https://en.wikipedia.org/wiki/Leap_year#Algorithm



QUESTIONS?

LAB 2 NOTES

Small groups ~ share screen/work together
quiet room

checkout room ~ mark off roll

feedback form

(<https://forms.gle/Mi8RPGw6DGgRs4DMA>)