



# COMP1511

## Tutorial 4

*arrays | scanf loops | functions*

# Arrays and Loops





# Arrays Relay

We'll be completing *copy\_array* on replit your groups

Assign 1 person per task

Tasks must be split evenly - you can't work on a second task if someone in your group hasn't done a task yet

# copy\_array

- Create an array of doubles with 3 elements.
- Create another double array of 10 elements; but every element initialised to 0.
- Create a while loop which loops through every element of the first array.
- Copy the elements of the first array into the second array (leave 0's at the end)
- Create a while loop which prints out all the elements of the second array.



## scanf loops

We're going to make a program that calls *scanf* multiple times to scan in multiple values from the user. This program will:

- Scan temperature values into an array
- Find the maximum temperature and print it out

What are the main steps we'll need to make this program?



# scanf loops

What does *scanf* return?

How can we use this result to check whether a user presses `ctrl-d` to signal the end-of-file?

This lets us use *scanf* in a loop to scan in multiple values!

*scanf* loop demo





# More Functions

We'll be writing functions that use this struct and enum to deal with colours:

*get\_main\_colour*

*brightness*

*average\_brightness*

```
struct colour {  
    int red;  
    int green;  
    int blue;  
};
```

```
enum main_colours {  
    RED,  
    GREEN,  
    BLUE,  
};
```