

ESE 2025 **Embedded Systems Engineering Design**
Test #1

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Name:

Student Number:

Problem 1 (10 pts): write a C-function that accepts an array of floating point numbers of size N, and returns the average of the numbers. Provide the pseudo-code, and write the function using correct C syntax. To help you along, use the function prototype given below:

a) pseudo-code:

b) C-function with prototype: `float findAverage(float *data, size_t N);`

Problem 2 (10 pts): In the documentary, AT&T Archives: The UNIX Operating System, mention is made of a feature of the Unix operating system that allows programs to be “connected” together. What is this Unix feature called, and can you describe it?

Problem 3 (10 pts): Consider the following set of Linux commands:

```
$ cd ~  
$ mkdir temp_dir  
$ cd temp_dir  
$ touch newfile.txt
```

Suppose that, at this point, the user wishes to delete the directory `temp_dir`. Can you provide one or two Linux commands to do so?

```
$
```

```
$
```