SUMMARY  Introduction to Algorithms and Pseudocode
CURRENT READING  Burden & Faires Sections 1.3

Machine Precision
There is a number $\epsilon_m$ such that $1 + \delta = 1$ whenever $\delta < \epsilon_m$
For exact arithmetic, $\epsilon_m$ is zero.
However, on a computer (calculator) $\epsilon_m$ is non-zero. We want to compute what it is for your calculator.

Exercise
Write down (in your own words) the meaning of the following terms:
ALGORITHM:

PSEUDOCODE:

Consider the following algorithm to compute $\epsilon_m$, the machine precision:

```plaintext
epsilon = 1;
it = 0;
maxit = 100;
while it < maxit
    epsilon = epsilon/2;
    b = 1 + epsilon;
    if (b == 1)
        break;
    it = it + 1;
end
```

Example
Can we parse the above code in order to execute the given algorithm?

Exercise
Find the machine precision of your calculator.

GROUPWORK
Write an algorithm to compute the average of $N$ numbers