Par extended 1 day

Note: a compound statement or a statement block is a list of Java statements in braces

```
{
    stmts;
}
```

Ex: Squares.java
do-while:

do
    stmt1;

while (cond);
    stmt2;

Ex. Square2.java
Recall while:

\[
i = 1 \leftarrow \text{initialize LCV}
\]

while \( i \leq n \) do

// do something with i

\[
i = i + 1 \leftarrow \text{increment LCV}
\]

end while

call i the local control variable (LCV)

can also count i from 0 to n-1:

\[
i = 0,
\]

while \( i < n \) do

// do something

\[
i = i + 1
\]

end while
for loop:

- init: LCV
- test: LRC

for \( i = 1; i \leq n; i++ \) {
    // do something
}

or

for \( i = 0; i < n; i++ \) {
    // do something
}

Ex. Squareless.java

Ex. Average.java

Exercise: re-write this as a for loop.
Ex. Max. Java

Exercise: re-write this as a for loop.

Scope:

The scope of a variable is the part of the program where it can be accessed. It extends from the point where it is declared, to the end of the block in which it was declared. i.e. the defining block for the variable.