



UNIVERSITY OF JOHANNESBURG

FACULTY OF SCIENCE

COMPUTER SCIENCE 1A

SAMPLE DESIGN

Problem Description

Write a C++ program so that in Option B your program will allow users to specify a sequence by asking them for a starting value, a stopping value and step value and the program will output the resulting sequence.

Input & Output

Input	
<i>Input Description</i>	<i>Mechanism</i>
Starting Value	Standard input stream
Stop Value	Standard input stream
Step Value	Standard input stream
Output	
<i>Output Description</i>	<i>Stream (optional)</i>
The sequence	Standard output stream

Data Format

<i>Identifier</i>	<i>Data Type</i>	<i>Description</i>
intLastValue	Integer	Last Value of the sequence
intMakeSequence	Integer	Function used to output sequence and output last value

Pseudo Code

```
IntLastValue = intMakeSequence
Output intLastValue
```

```
intMaeSequence:
  intStart ← User input
  intStop ← User input
  intStep ← User input
```

```
while (intStart is less than intStop)
```

```
    Output intStart
```

```
    Add intStep to intStart
```

```
Return intStop
```

UML Activity Diagram

