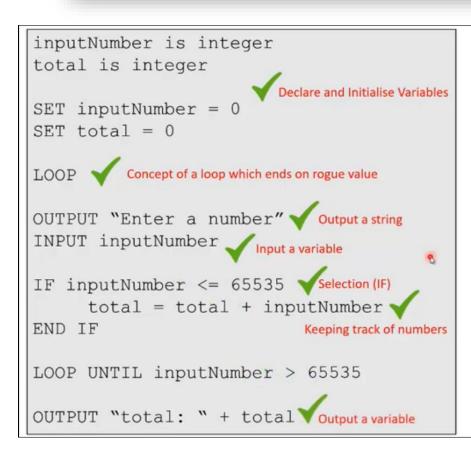6. An algorithm is required to record a series of whole numbers between 1 and 65535.

   The algorithm should:

   - accept th[e]
   - stop acce[pt...] **Algorithm mark scheme** larger than 65535)
   - output the[...]
   - output the mean of all the numbers entered
   - output the largest number entered
   - output the smallest number entered

```
inputNumber is integer
total is integer
                        ✔ Declare and Initialise Variables
SET inputNumber = 0
SET total = 0

LOOP    ✔ Concept of a loop which ends on rogue value

OUTPUT "Enter a number" ✔ Output a string
INPUT inputNumber ✔ Input a variable

IF inputNumber <= 65535 ✔ Selection (IF)
     total = total + inputNumber ✔
END IF                    Keeping track of numbers

LOOP UNTIL inputNumber > 65535

OUTPUT "total: " + total ✔ Output a variable
```

This is worth 7/9

78% - This is a Grade 9 answer!

Even if you have made a few mistakes you shouldn't lose many/any marks.

Full mark answer

Indicative content

currentNumber is integer
maxNo is integer
minNo is integer
howMany is integer
total is integer
mean is real

set currentNumber=0
set maxNo =0
set minNo=65535 **(or any number > 65535)**
set howMany=0
set total = 0
set mean =0

repeat   **(Do)**

output "Enter a number:"
input currentNumber
if currentNumber < 65536 then

if currentNumber >maxNo then
    maxNo= currentNumber
endif

if currentNumber <minNo then
    minNo= currentNumber
endif

howMany=howMany+1

 total=total+ currentNumber
endif

until currentNumber > 65535   **(loop until)**

mean=total/ howMany

output "Total:"& total
output "Mean:" & mean
output "Largest:" & maxNo
output "Smallest:" & minNo

End