TASK-6

PSUEDOCODE AND FLOWCHART

TOPIC/QUESTION: ARMSTRONG NUMBER

FLOWCHART:

```
                    ( Main )
                       |
                       v
  +--------------------------------+
  | Integer a, b, c, sum           |
  +--------------------------------+
                       |
                       v
  +--------------------------------+
  |           sum = 0              |
  +--------------------------------+
                       |
                       v
  /             Input a            /
                       |
                       v
  +--------------------------------+
  |             c = a              |
  +--------------------------------+
                       |
                       v                        Next
  < a = a to 1 decreasing >------------------------+
                       |                            v
                     Done              +--------------------------+
                       |               |        b = a%10          |
                       |               +--------------------------+
                       |                            |
                       |                            v
                       |               +--------------------------+
                       |               |    sum = sum+(b*b*b)      |
                       |               +--------------------------+
                       |                            |
                       |                            v
                       |               +--------------------------+
                       |               |         a = a/10         |
                       |               +--------------------------+
                       |                            |
                       |                            v
                       |               +--------------------------+
                       |               |         a = a+1          |
                       |               +--------------------------+
                       |                            |
                       +<---------------------------+
                       |
                       v
         False  <   sum==c   >   True
           |                       |
           v                       v
   / Output "NO" /      / Output "ARMSTRONG NUMBER" /
           |                       |
           +--------->( )<---------+
                       |
                       v
                    ( End )
```
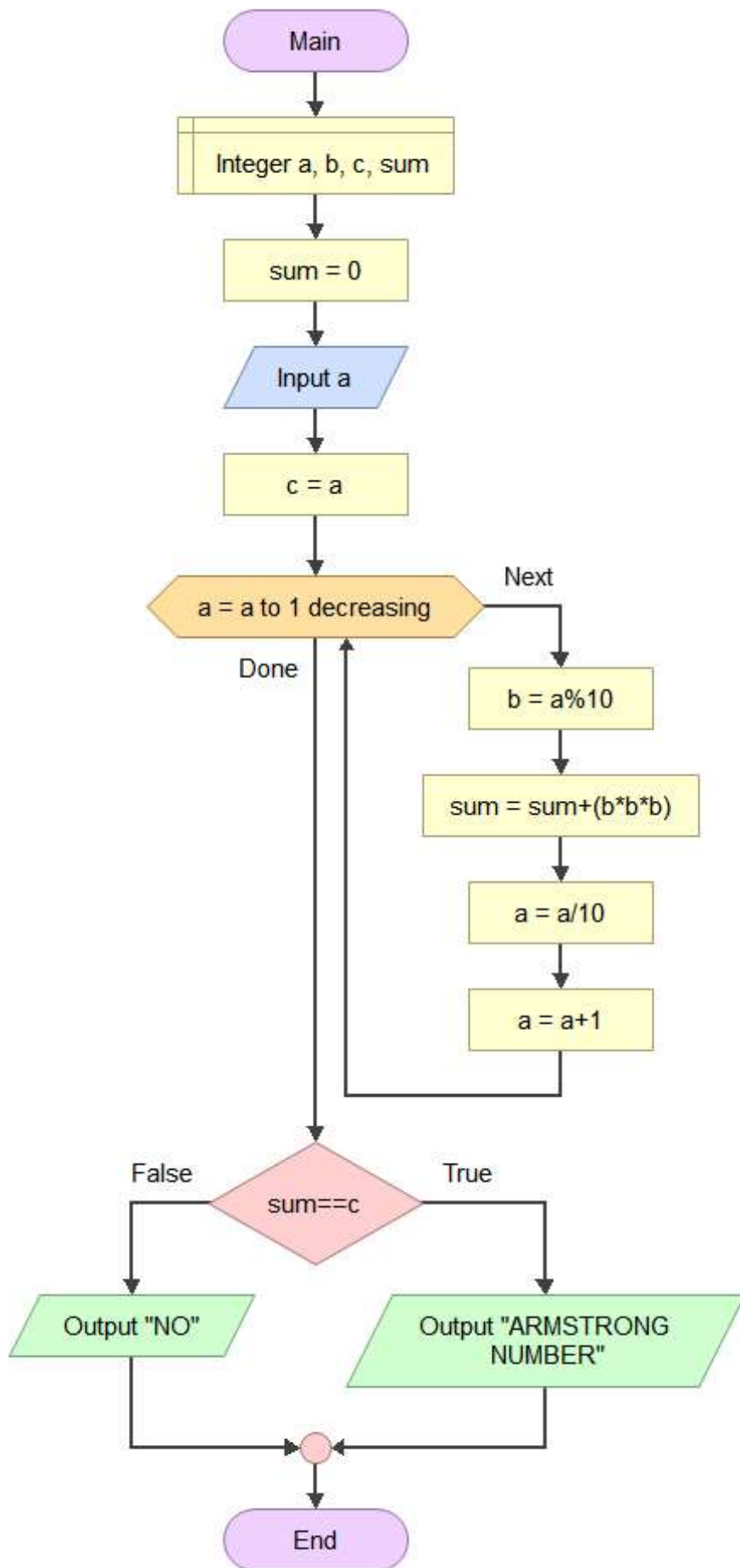
PSUEDOCODE:

BEGIN

INPUT a, b, c, sum

ASSIGN sum=0

INPUT a

ASSIGN c=a

FOR a=a to 1 decreasing

ASSIGN b=a%10, sum=sum+(b*b*b)

      a=a/10, a=a+1

END FOR LOOP

IF sum==c

   Then print "Armstrong number"

ELSE Print "No"

END IF

END