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10/24/17
Midterm - Problem 2

System Libraries:

iostream, cstdlib

Function Main

Declare Variables:
count_1,count_2, placeH, conv;
char str[4]

Prompt:
Ask user to enter
a 4 digit number.

User's Input:
input stored as a character
array under variable 'num'.

Char Array ---> Integer
convert 'num' to int
and store as 'conv'

User's 4 digit
is even

TRUE

Pg.2

Assign
count_1 = 3

**Decrement
Counter**

(A)

count_1>=0 → (R)

Is the *4th* bit
between 0 and 9?
*(counter descends
through bits)*

Output:
display the char of the
count followed by "NAN"

→ (A)

Assign the difference of the ASCII code of
the char of the corresponding count and
'0'(which is 43) to placeH.

(R)

Return

Output: placeH
display the char of the
count followed by a space

Assign
count_2 = 0

**Increment
Counter**

count less than
variable 'placeH'

TRUE

Output:
display "*"

(A)

Flowchart: Midterm - Problem 2

Pg. 1 → **Assign** count_1 = 3 ← **Decrement Counter** ← **A**

count_1>=0 → **R**

Is the *4th* bit between 0 and 9? *(counter descends through bits)* → **Output:** display the char of the count followed by "NAN" → **A**

R → **Return**

Assign the difference of the ASCII code of the char of the corresponding count and '0'(which is 43) to placeH.

Output: placeH display the char of the count followed by a space

Assign count_2 = 0 ← **Increment Counter**

count less than variable 'placeH' — **TRUE** → **Output:** display variable 'placeH'

A

Flowchart: Midterm - Problem 2