

Date: \_\_\_\_\_

Problem 7 : Which floor 2000

Understood : There are 10 floors 0-9 and an led display showing which floor it is. It takes 7 inputs (1 and 0) to show on led the floor, 1 means light on.

Solution : we will treat the 7 digit input as integer and perform MOD and / function to get values. If last digit is zero MOD will give that with telling other values when divisor function is used, same for when last digit is

Pseudocode :

START

OUTPUT "Enter the 7 digit number for led display"

INPUT Number

last-digit = Number % 10

remaining-digit = Number / 10

IF remaining-digit == 011000 AND last-digit == 0 THEN

OUTPUT "The floor number is 1"

ELSE IF remaining-digits == ~~110110~~ AND last-digit == 1 THEN

OUTPUT "This is second floor"

ELSE IF remaining-digits == 111100 AND last-digit == 1 THEN

OUTPUT "This is third floor"

ELSE IF remaining-digit == 011001 AND last-digit == 1 THEN

OUTPUT "This is fourth floor"

ELSE IF remaining-digit == 101101 AND last-digit == 1 THEN

OUTPUT "This is fifth floor"

ELSE IF remaining-digit == 101111 AND last-digit == 1 THEN

OUTPUT "This is sixth floor"

ELSE IF remaining-digit == 111000 AND last-digit == 0 THEN

OUTPUT "This is seventh floor"

NEXT PAGE →

MIGHTY PAPER PRODUCT



Date: \_\_\_\_\_

ELSE IF remaining-digit == 11111 AND last-digit == 1 THEN  
OUTPUT "This is fifth floor"

ELSE IF remaining-digits == 11101 AND last-digit == 1 THEN  
OUTPUT "This is sixth floor"

ELSE IF remaining-digits == 11111 AND last-digit == 0 THEN

ELSE OUTPUT "This is floor zero"

OUTPUT "Number pattern entered is invalid"

END IF

END

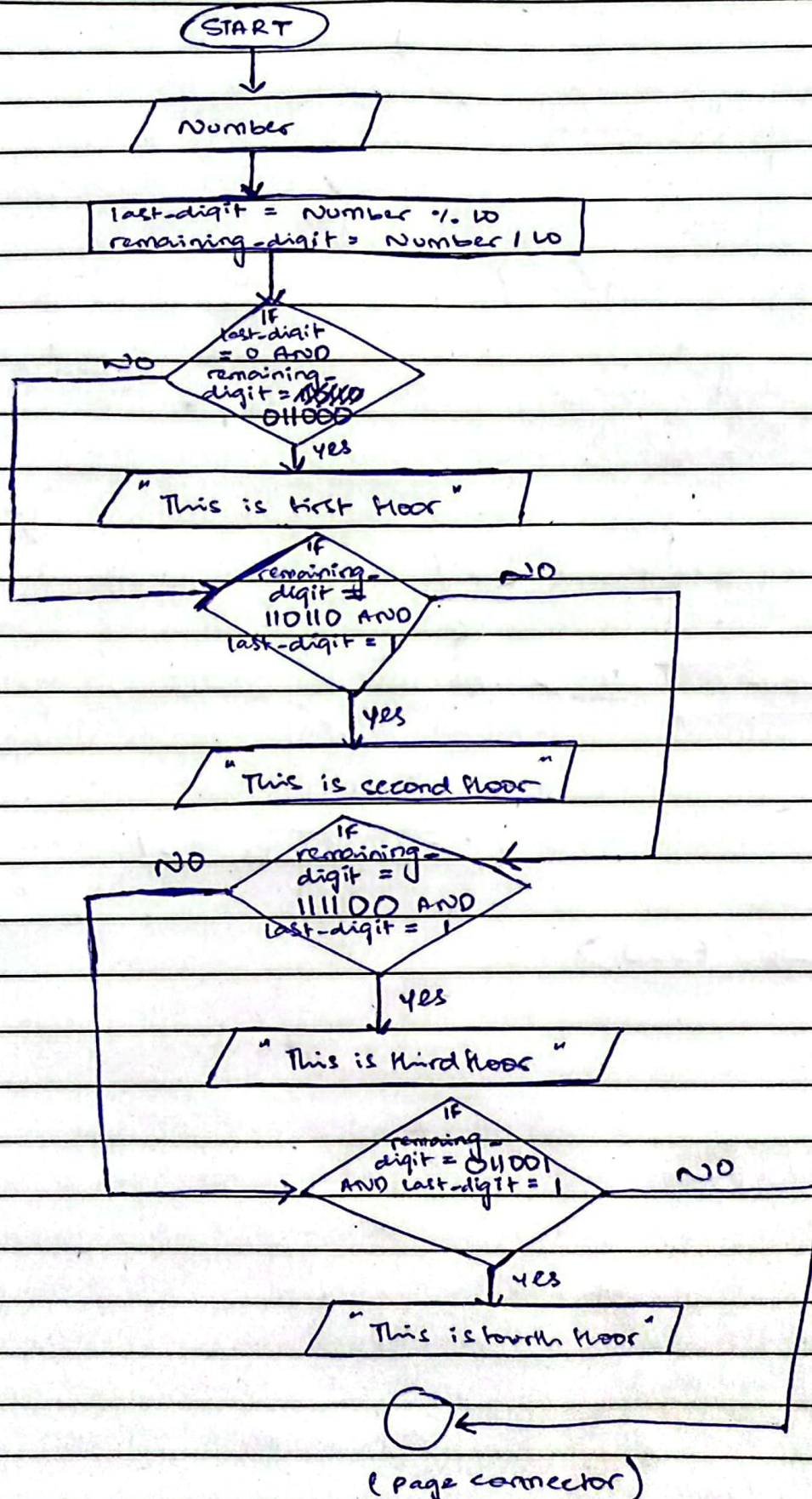
IPO chart :

Input	Process	Output
<ul style="list-style-type: none"><li>- 7 digit binary number (representing state of elevator panel A-G)</li><li>- Input could be treated as a whole integer</li></ul>	<ul style="list-style-type: none"><li>- Use mod 10 to find the last digit of sequence and use divisor 10 to find the remaining digits.</li><li>- compare different combinations of the input to evaluate the floor.</li><li>- If the given combination doesn't match then prompt user of invalid input</li></ul>	<ul style="list-style-type: none"><li>- The floor number (0 to 9)</li><li>- Error message on invalid input.</li></ul>

MIGHTY PAPER PRODUCT



Date: \_\_\_\_\_



MIGHTY PAPER PRODUCT



Date: \_\_\_\_\_

