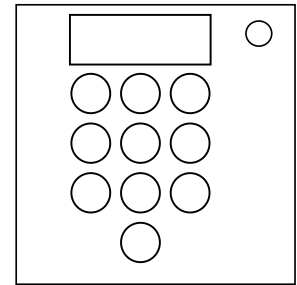


## On the Subject of Keypad Lock

*There are 23 wrong combinations with four button presses. We can strike 23 times right?*

On this module are 10 circular buttons and a display. Four of the numbers on this module have faded off and thus are beleived to be part of the 4 digit code needed to solve the module. However, there is a problem. We don't know the order to press them in. It is up to you to find the order to press these four numbers in. Input the numbers in the correct order to solve the module. If you input them in the wrong order then you will receive a strike and your current input will be reset.



### Finding the correct table:

To get the correct order of presses you first need to get a number. To get this number start off with the number of batteries.

1. Modulo the number by 6 and add 1.
2. Find the charcter in the serial number in the position you just worked out.
3. If the character is a letter then turn it into its alphanumeric position (A=1, B=2, etc).

Repeat this these steps 2 more times using the answer you got as the input. Finally, modulo the number by 10 to get the table needed.

### Using the table:

Each table is made of the numbers 0-9 that are randomly arranged. Take the four faded numbers and find their corresponding numbers in the needed table. Order these numbers from lowest to highest to get the order you need to press them in.

(Example: Using table 2, faded numbers are 4 1 3 7. Corresponding numbers in table 2 are 1 6 4 3. Reordering that gets 1 3 4 6 which means that the final code is 4 7 3 1)

0			1			2			3			4		
5	2	3	9	0	2	6	7	4	2	0	7	6	5	1
9	0	8	4	1	8	1	9	8	9	4	1	0	3	2
6	4	7	7	3	5	3	2	0	5	8	3	4	7	8
	1			6			5			6			9	

5			6			7			8			9		
8	0	3	0	4	9	6	8	4	5	9	0	9	5	3
4	2	5	5	1	3	0	3	5	6	8	4	2	1	4
1	7	6	2	8	6	1	2	7	7	3	1	0	8	7
	9			7			9			2			6	