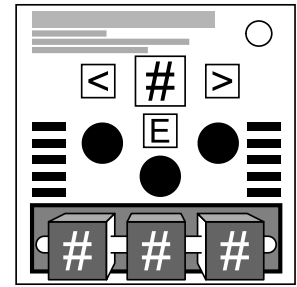


On the Subject of The Number Cipher

Nobody is quite sure why this thing resets every few seconds. It's probably for health and safety reasons.

This manual assumes you know where the numbered cubes are and what colored lights are active. Please contact VFlyer#6320 over on the KTANE Discord for any issues with this manual.



R	G	B	Digits Needed	Instructions	Function
			A, B, C	Take the digital root of the 3-digit number, or the sum of the 3 digits.	DigitalRoot(A+B+C)
		X	A, C	Take the sum of digits A and C. Use the last digit of the sum to submit.	$(A+C) \% 10$
	X		B, C	Subtract B with C, add 10 if the result is less than 0.	$(B-C+10)\%10$
	X	X	B, C	Take the product of digits B and C. Use the last digit of the product to submit.	$(B*C) \% 10$
X			A, B, C	Multiply digits A and B, add C, and then take the digital root of the sum.*	DigitalRoot(A*B+C)
X		X	A, C	Take the product of digits A and C. Use last digit of the product to submit.	$(A*C) \% 10$
X	X		A, B, C	Multiply the digits B and C, add A, and then take the digital root of the sum.*	DigitalRoot(B*C+A)
X	X	X	A, B, C	Take the digital root of the product of the 3 digits.	DigitalRoot(A*B*C)

Green/X represents LIT. A, B, C refers to the first, second, and third digits respectively. % refers to modulo.

*You can take the digital root of the product of the two digits early before adding the remaining digit and taking the digital root of that sum.

Appendix - Digital Root + Modulo Reference Sheet

For those who have a hard time trying to do some complicated math.

The digital root of all whole numbers greater than 0 and a multiple of 9 will always be 9. The digital root of the sum of X and a whole number multiple of 9 will always be X, assuming X is between 1 to 9, inclusive.

Modulo refers to taking the remainder of the quotient after integer division. For example, $595\%9 = 1$ because $595/9$ gives 66 remainder 1, 1 being the remainder after dividing.

Alternatively you can keep subtracting the divisor until you have a value less than the divisor. For example, you can continue subtracting 24 from 102 until you get the remainder 6.

Orange denotes special properties from the tables provided.

Addition → Digital Root Table									
+	1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9	1
2	3	4	5	6	7	8	9	1	2
3	4	5	6	7	8	9	1	2	3
4	5	6	7	8	9	1	2	3	4
5	6	7	8	9	1	2	3	4	5
6	7	8	9	1	2	3	4	5	6
7	8	9	1	2	3	4	5	6	7
8	9	1	2	3	4	5	6	7	8
9	1	2	3	4	5	6	7	8	9