

## On the Subject of Pie

*What is the point of naming this module 'pie' if there is no pie?! The pie is a lie!*

*See Appendix  $\pi$  for pi identification reference.*

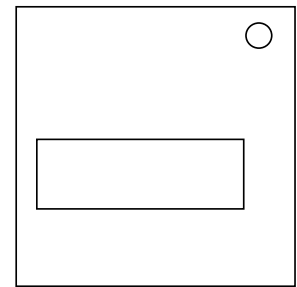
A Pie module shows five consecutive significant digits within the first 500 digits of pi ( $\pi$ ). The digits are ordered from left to right.

Search for the position of the first digit, from which the five digits begin. Add this position to the number displayed on the module. Take this sum modulo 100. This result will be referred to as the number X.

Add up all the five digits, then take the least significant digit. This digit will be referred to as the number Y.

Follow all the rules below from top to bottom, pressing each digit only once:

1. If X is a prime number, press the first digit.
2. If X and Y are either both even or both odd, press the second digit.
3. If X is a multiple of three, press the third digit.
4. If Y is not zero, and X is a multiple of Y, press the fourth digit.
5. Press all the digits that are not pressed yet from right to left, starting from the fifth digit.



## Appendix π: Pi Identification Reference

Here are the first 500 significant digits of pi.

31415926535897932384  
 62643383279502884197  
 16939937510582097494  
 45923078164062862089  
 98628034825342117067  
 98214808651328230664  
 70938446095505822317  
 25359408128481117450  
 28410270193852110555  
 96446229489549303819  
 64428810975665933446  
 12847564823378678316  
 52712019091456485669  
 23460348610454326648  
 21339360726024914127  
 37245870066063155881  
 74881520920962829254  
 09171536436789259036  
 00113305305488204665  
 21384146951941511609  
 43305727036575959195  
 30921861173819326117  
 93105118548074462379  
 96274956735188575272  
 48912279381830119491

Line	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	3	1	4	1	5	9	2	6	5	3	5	8	9	7	9	3	2	3	8	4
2	6	2	6	4	3	3	8	3	2	7	9	5	0	2	8	8	4	1	9	7
3	1	6	9	3	9	9	3	7	5	1	0	5	8	2	0	9	7	4	9	4
4	4	5	9	2	3	0	7	8	1	6	4	0	6	2	8	6	2	0	8	9
5	9	8	6	2	8	0	3	4	8	2	5	3	4	2	1	1	7	0	6	7
6	9	8	2	1	4	8	0	8	6	5	1	3	2	8	2	3	0	6	6	4
7	7	0	9	3	8	4	4	6	0	9	5	5	0	5	8	2	2	3	1	7
8	2	5	3	5	9	4	0	8	1	2	8	4	8	1	1	1	7	4	5	0
9	2	8	4	1	0	2	7	0	1	9	3	8	5	2	1	1	0	5	5	5
10	9	6	4	4	6	2	2	9	4	8	9	5	4	9	3	0	3	8	1	9
11	6	4	4	2	8	8	1	0	9	7	5	6	6	5	9	3	3	4	4	6
12	1	2	8	4	7	5	6	4	8	2	3	3	7	8	6	7	8	3	1	6
13	5	2	7	1	2	0	1	9	0	9	1	4	5	6	4	8	5	6	6	9
14	2	3	4	6	0	3	4	8	6	1	0	4	5	4	3	2	6	6	4	8
15	2	1	3	3	9	3	6	0	7	2	6	0	2	4	9	1	4	1	2	7
16	3	7	2	4	5	8	7	0	0	6	6	0	6	3	1	5	5	8	8	1
17	7	4	8	8	1	5	2	0	9	2	0	9	6	2	8	2	9	2	5	4
18	0	9	1	7	1	5	3	6	4	3	6	7	8	9	2	5	9	0	3	6
19	0	0	1	1	3	3	0	5	3	0	5	4	8	8	2	0	4	6	6	5
20	2	1	3	8	4	1	4	6	9	5	1	9	4	1	5	1	1	6	0	9
21	4	3	3	0	5	7	2	7	0	3	6	5	7	5	9	5	9	1	9	5
22	3	0	9	2	1	8	6	1	1	7	3	8	1	9	3	2	6	1	1	7
23	9	3	1	0	5	1	1	8	5	4	8	0	7	4	4	6	2	3	7	9
24	9	6	2	7	4	9	5	6	7	3	5	1	8	8	5	7	5	2	7	2
25	4	8	9	1	2	2	7	9	3	8	1	8	3	0	1	1	9	4	9	1