**On the subject of PIN codes**

Four numbers to be entered on a keypad.

The PIN consists of four digits. Each digit needs to be calculated using these formulas.

If both x and y are even:

Otherwise, if the battery level is above 2 and y is odd:

Otherwise, if the digit sum of the serial number is greater than 12:

Otherwise:

Variable reference:  
: value of the binary display below the keypad  
: determined by the table below  
: nth digit of serial number (from left to right)  
: digit sum of serial number  
: battery level (0-3)  
: state of indicator (On: 1, Off: 0)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Digit | | | |
|  | y | 1 | 2 | 3 | 4 |
| Value of x | 0 | 91 | 59 | 16 | 3 |
| 1 | 63 | 7 | 88 | 39 |
| 2 | 72 | 51 | 73 | 36 |
| 3 | 71 | 54 | 58 | 25 |
| 4 | 30 | 94 | 14 | 93 |
| 5 | 87 | 35 | 90 | 45 |
| 6 | 56 | 60 | 17 | 67 |
| 7 | 33 | 85 | 64 | 38 |