



Powers of 2 (Binary) Investigation

Name: _____ Date: _____

- By adding combinations of the numbers 1, 2, 4, 8, 16, 32 and 64, can you make every number from 1 to 100? You are only allowed to use each number once in each calculation.

For example:

$$19 = 1 + 2 + 16, \quad 37 = 1 + 4 + 32, \quad 63 = 1 + 2 + 4 + 8 + 16 + 32$$

1 =	26 =
2 =	27 =
3 =	28 =
4 =	29 =
5 =	30 =
6 =	31 =
7 =	32 =
8 =	33 =
9 =	34 =
10 =	35 =
11 =	36 =
12 =	37 = 1 + 4 + 32
13 =	38 =
14 =	39 =
15 =	40 =
16 =	41 =
17 =	42 =
18 =	43 =
19 = 1 + 2 + 16	44 =
20 =	45 =
21 =	46 =
22 =	47 =
23 =	48 =
24 =	49 =
25 =	50 =



Powers of 2 (Binary) Investigation (2)

51 =	76 =
52 =	77 =
53 =	78 =
54 =	79 =
55 =	80 =
56 =	81 =
57 =	82 =
58 =	83 =
59 =	84 =
60 =	85 =
61 =	86 =
62 =	87 =
63 = 1 + 2 + 4 + 8 + 16 + 32	88 =
64 =	89 =
65 =	90 =
66 =	91 =
67 =	92 =
68 =	93 =
69 =	94 =
70 =	95 =
71 =	96 =
72 =	97 =
73 =	98 =
74 =	99 =
75 =	100 =