

(S-1) Stifled Minus One Numbers:  
 These numbers add up to one less than their base.

by Adi Cox.            7-5-13

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Number x	S-1 set of bases	S-1 Numbers in their respective bases	n S-1 Numbers
1	{1}	0	1
2	{2, 3}	10, 2	2
3	{4}	3	1
4	{2, 3, 5}	100, 11, 4	3
5	{6}	5	1
6	{3, 4, 7}	20, 12, 6	3
7	{8}	7	1
8	{2, 5, 9}	1000, 13, 8	3
9	{4, 10}	21, 9	2
10	{3, 6, 11}	101, 14, (10)	3
11	{12}	(11)	1
12	{3, 4, 5, 7, 13}	110, 30, 22, 15, (12)	5
13	{14}	(13)	1
14	{8, 15}	16, (14)	2
15	{6, 16}	23, (15)	2
16	{2, 5, 9, 17}	10000, 31, 17, (16)	4
17	{18}	(17)	1
18	{3, 4, 7, 10, 19}	200, 102, 24, 18, (18)	5
19	{20}	(19)	1
20	{5, 6, 11, 21}	40, 32, 19, (20)	4
21	{4, 8, 22}	111, 25, (21)	3
22	{12, 23}	1 (10), (22)	2
23	{24}	(23)	1
24	{4, 7, 9, 13, 25}	120, 33, 26, 1 (11), (24)	5
25	{6, 26}	41, (25)	2
26	{14, 27}	1 (12), (26)	2
27	{10, 28}	27, (27)	2
28	{3, 5, 8, 15, 29}	1001, 103, 34, 1 (13), (28)	5
29	{30}	(29)	1
30	{3, 6, 7, 11, 16, 31}	1010, 50, 42, 28, 1 (14), (30)	6
31	{32}	(31)	1
32	{2, 5, 9, 17, 33}	100000, 112, 35, 1 (15), (32)	5
33	{4, 12, 34}	201, 29, (33)	3
34	{18, 35}	1 (16), (34)	2
35	{8, 36}	43, (35)	2
36	{3, 4, 5, 7, 10, 13, 19, 37}	1100, 210, 121, 51, 36, 2 (10), 1 (17), (36)	8
37	{38}	(37)	1
38	{20, 39}	1 (18), (38)	2
39	{14, 40}	2 (11), (39)	2
40	{5, 6, 9, 11, 21, 41}	130, 104, 44, 37, 1 (19), (41)	6
41	{42}	(42)	1
42	{7, 8, 15, 22, 43}	60, 52, 2 (12), 1 (20), (42)	5
44	{12, 23, 45}	38, 1 (21), (44)	3
45	{6, 10, 16, 46}	113, 45, 2 (13), (45)	4
46	{24, 47}	1 (22), (46)	2
47	{48}	(47)	1
48	{4, 9, 13, 17, 25, 49}	300, 53, 39, 2 (14), 1 (23), (48)	6
49	{8, 50}	61, (49)	2

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50	{6,11,26,51}	122,46,1(24),(50)	4
51	{18,52}	2(15),(51)	2
52	{5.14,27,53}	202,3(10),1(25),(52)	4
53	{54}	(53)	1
54	{3,7,10,19,28,55}	2000,105,54,2(16),1(26),(54)	6
55	{6,12,56}	131,47,(55)	3
56	{5,8,9,15,29,57}	211,70,62,3(11),1(27),(56)	6
57	{20,58}	2(17),(57)	2
58	{30,59}	1(28),(58)	2
59	{60}	(59)	1
60	{5,6,7,11,13, 16,21,31,61}	220,140,114,55,48, 312,218,129,(60)	9
61	{62}	(61)	1
62	{32,63}	1(30),(62)	2
63	{10,22,64}	63,2(19),(63)	3
64	{2,9,17,33,65}	1000000,71,3(13),1(31),(64)	5
65	{14,66}	49,(65)	2
66	{4,7,12,23,34,67}	1002,123,56,2(20),1(32),(66)	6
67	{68}	(67)	1
68	{18,35,69}	3(14),1(33),(68)	3
69	{4,24,70}	1011,2(21),(69)	3
70	{11,15,36,71}	64,4(10),1(34),(70)	4
71	{72}	71	1
72	{4,7,9,10,13, 19,25,37,73}	1020,132,80,72,57, 3(15),2(22),1(35),(72)	9
73	{74}	(73)	1
74	{38,75}	1(36),(74)	2
75	{6,16,26,76}	203,4(11),2(23),(75)	4
76	{5,20,39,77}	301,3(16),1(37),(76)	4
77	{8,12,78}	115,65,(77)	3
78	{7,14,27,40,79}	141,58,2(24),1(38),(78)	5
79	{80}	(79)	1
80	{5,6,11,17,21,41,81}	310,212,73,4(12),3(17),1(39),(81)	7
81	{4,10,28,82}	1101,81,2(25),(82)	4
82	{3,42,83}	10001,1(40),(82)	3
83	{84}	(83)	1
84	{3,4,7,8,13,15, 22,29,43,85}	10010,1110,150,124,66,59, 3(18),2(26),1(41),(84)	10
85	{6,18,86}	221,4(13),(85)	3
86	{44,87}	1(42),(86)	2
87	{30}	2(27),(87)	2
88	{12,23,45,89}	74,3(19),1(43),(88)	4
89	{90}	(89)	1
90	{3,6,10,11,16, 19,31,46,91}	10100,230,90,82,5(10), 4(14),2(28),1(44),(90)	9
91	{8,14,92}	133,67,(91)	3
92	{24,47,93}	3(20),1(45),(92)	3
93	{32,94}	2(29),(93)	2
94	{48,95}	1(46),(94)	2
95	{20,96}	4(15),(95)	2
96	{4,13,17,25,33,49,97}	1200,75,5(11),3(21),2(30),1(47),(96)	7
97	{98}	(97)	1
98	{8,15,50}	142,68,1(48)	3
99	{12,34}	83,2(31)	2
100	{5,11,51}	400,91,1(49)	3

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The html file below was used to find the s - 1 numbers in their various bases above.

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<!DOCTYPE HTML PUBLIC " - //W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd"
">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>A for loop</title>
</head>
<body>
<script type="text/javascript" language="javascript">

document.write("<h3>The 6 digit base B numbers = B-1<h3>")

B=5;
u=0;
v=B-1;

for (a = u; a <= v; a++)
{
    for (b = u; b <= v; b++)
    {
        for (c = u; c <= v; c++)
        {
            for (d = u; d <= v; d++)
            {
                for (e = u; e <= v; e++)
                {
                    for (f = u; f <= v; f++)
                    {

                        if(a + b + c + d + e + f == v)
                        {
                            document.write(a,b,c,d,e,f," = ",
B*B*B*B*B*a + B*B*B*B*B*b + B*B*B*B*c + B*B*d + B*e + f , "<br />");
                        }
                    }
                }
            }
        }
    }
}

</script>
</body>
</html>

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