

TABLE 5

ALL POSITIVE INTEGERS NOT REPRESENTED BY

$$a, b, c = ax^3 + by^3 + cz^3$$

1, 1, 1	A	1, 5, 8	$4n+3, 8n+2, I$
1, 1, 2	C	1, 5, 10	J
1, 1, 3	D	1, 5, 25	$5n \pm 2, 25n \pm 10, E$
1, 1, 4	$8n+3, A$	1, 5, 40	$4n+3, 8n+2, J$
1, 1, 5	E	1, 6, 6	$8n+3, G$
1, 1, 6	B	1, 6, 9	$3n+2, B$
1, 1, 8	$4n+3, 16n+6, C$	1, 6, 16	$8n \pm 3, 16n \pm 2,$ $64n+8, B$
1, 1, 9	$9n \pm 3, A$	1, 6, 18	$3n+2, 9n+3, K$
1, 1, 12	$4n+3, D$	1, 6, 24	$8n \pm 3, 32n+12, G$
1, 1, 16	$8n+6, 4n+3,$ $32n+12, A$	1, 8, 8	$4n+2, 4n+3,$ $8n+5, A$
1, 1, 21	$D, E, 49^t(49n+7r),$ $r=1, 2, 4$	1, 8, 16	$4n+2, 4n+3,$ $8n+5, C$
1, 1, 24	$4n+3, 8n+6, B$	1, 8, 24	$4n+2, 4n+3, K$
1, 2, 2	A	1, 8, 32	$4n+2, 8n+3, A,$ $8n+5, 32n+20$
1, 2, 3	H	1, 8, 40	$4n+2, 4n+3,$ $8n+5, 32n+28, F$
1, 2, 4	C	1, 8, 64	$4n+2, 8n+3, C,$ $64n+40,$ $4r(8n+5),$ $4r(8n+7), r=0, 1$
1, 2, 5	I	1, 9, 9	$3n+2, 9n \pm 3, A$
1, 2, 6	K	1, 9, 12	$3n+2, 4n+3, D$
1, 2, 8	$8n+5, A$	1, 9, 21	$3n+2, D, E,$ $49^t(49n+7r),$ $r=1, 2, 4$
1, 2, 10	$8n+7, F$	1, 9, 24	$3n+2, 4n+3,$ $8n+6, B$
1, 2, 16	$8n+5, 8n+7,$ $16n+10, C$	1, 10, 30	$D, J, K$
1, 2, 32	$16n+14, A,$ $2r(8n+5), r=0,$ 1, 2	1, 12, 12	$4n+2, 4n+3, G$
1, 3, 3	G	1, 12, 36	$3n+2, 4n+2,$ $4n+3, D$
1, 3, 4	$4n+2, D$	1, 16, 16	$4n+2, 4n+3, A,$ $8n+5, 16n+8,$ $16n+12$
1, 3, 6	$3n+2, C$	1, 16, 24	$4n+2, 4n+3, B,$ $8n+5, 64n+8$
1, 3, 9	$3n+2, D$	1, 16, 48	$4n+2, 4n+3, 8n+5,$ $16n+8, 16n+12,$ D
1, 3, 10	$D, F, 4^t(16n+2)$	1, 21, 21	$A, G, 49^t(7n+r),$ $r=3, 5, 6$
1, 3, 12	$4n+2, G$		
1, 3, 18	$3n+2, 9n+6, H$		
1, 3, 30	$G, I, 4^t(16n+6)$		
1, 3, 36	$3n+2, 4n+2, D$		
1, 4, 4	$4n+2, 4n+3, A$		
1, 4, 6	$16n+2, B$		
1, 4, 8	$4n+2, 4n+3, C$		
1, 4, 12	$4n+2, 4n+3, D$		
1, 4, 16	$4n+2, 4n+3,$ $16n+12, A$		
1, 4, 24	$4n+2, 4n+3, B$		
1, 4, 36	$4n+2, 4n+3,$ $9n \pm 3, A$		
1, 5, 5	$5n \pm 2, A$		

TABLE 5—Continued

1, 24, 24	$4n+2, 4n+3, G,$ $8n+5, 32n+12$	3, 4, 36	$3n+2, 4n+1,$ $4n+2, D$
1, 24, 72	$3n+2, 4n+2, K,$ $4n+3, 9n+3$	3, 7, 7	$D, K, 49^t(7n+r),$ $r=1, 2, 4$
1, 40, 120	$4n+2, 4n+3, D,$ J, K	3, 7, 63	$3n+2, D, K,$ $49^t(7n+r), r=1,$ 2, 4
1, 48, 144	$3n+2, 8n+5, D,$ $4r(4n+2),$ $4r(4n+3), r=0, 1$	3, 8, 8	$4n+1, 4n+2, D,$ $8n+7, 32n+4$
2, 2, 3	$8n+1, D$	3, 8, 12	$4n+1, 4n+2, L$
2, 3, 3	L	3, 8, 24	$3n+1, 4n+1,$ $4n+2, A$
2, 3, 6	$3n+1, A$	3, 8, 48	$4n+1, 4n+2, L,$ $8n+7, 64n+24$
2, 3, 8	$8n \pm 1, 32n+4, D$	3, 8, 72	$3n+1, 4n+1, 4n+2,$ $8n+7, 32n+4, D$
2, 3, 9	$3n+1, 9n+6, H$	3, 10, 30	A, G, N
2, 3, 12	$16n+6, L$	3, 16, 48	$4n+1, 4n+2, 8n+7,$ $16n+4, 16n+8, G$
2, 3, 18	$3n+1, 8n+1, D$	3, 40, 120	$4n+1, 4n+2, A,$ G, N
2, 3, 48	$8n \pm 1, 16n \pm 6,$ $64n+24, L$	5, 6, 15	C, J, L
2, 5, 6	B, I, M	5, 8, 24	$4n+2, 4n+3, B,$ I, M
2, 5, 10	$8n+3, N$	5, 8, 40	$4n+2, 4n+3, N,$ $8n+1, 32n+12$
2, 5, 15	B, H, N	8, 9, 24	$3n+1, 4n+2, K,$ $4n+3, 9n+3$
2, 6, 9	$3n+1, 9n+3, K$	8, 15, 24	$4n+1, 4n+2, E,$ F, L
2, 6, 15	E, F, L		
3, 3, 4	$4n+1, G$		
3, 3, 7	$G, M, 49^t(49n+7r),$ $r=3, 5, 6$		
3, 3, 8	$4n+1, 8n+2, L$		
3, 4, 4	$4n+1, 4n+2, D$		
3, 4, 12	$4n+1, 4n+2, G$		

Diagonal

Table 5 gives each of the 102 regular forms and all the positive integers not represented by it. Use will be made of the abbreviations

$$A = 4^t(8n + 7), \quad B = 9^t(9n + 3),$$

$$C = 4^t(16n + 14), \quad D = 9^t(9n + 6),$$

$$E = 4^t(8n + 3), \quad F = 25^t(25n \pm 5),$$

$$G = 9^t(3n + 2), \quad H = 4^t(16n + 10),$$

$$I = 25^t(25n \pm 10), \quad J = 25^t(5n \pm 2),$$

$$K = 4^t(8n + 5), \quad L = 9^t(3n + 1),$$

$$M = 4^t(8n + 1), \quad N = 25^t(5n \pm 1).$$