

Figure 1: Diamond and Square Equations

Figure 1a: Diamond Equations

Step	Total
Initial	4
1st Diamond	1
1st Square	4
2nd Diamond	4
2nd Square	12
3rd Diamond	16
3rd Square	40
4th Diamond	64
4th Square	144

Diamond Iteration	d	m	e	# target cells
1	17	16	8	1
2	17	8	4	4
3	17	4	2	16
4	17	2	1	64

m1 = d-1	e1 = m1 / 2	cd1 = [(d-1) / m1] ^2
m2 = m1 / 2	e2 = m2 / 2	cd2 = [(d-1) / m2] ^2
m3 = m2 / 2	e3 = m3 / 2	cd3 = [(d-1) / m3] ^2

Figure 1b: Square Equations

Square Iteration	d	m	e	# target cells
1	17	16	8	4
2	17	8	4	12
3	17	4	2	40
4	17	2	1	144

m1 = d-1	e1 = m1 / 2	
m2 = m1 / 2	e2 = m2 / 2	?
m3 = m2 / 2	e3 = m3 / 2	

Figure 2: Square equation working using left table

Iteration # t	1	2	3	4
1	2	4	8	9
2	2	4	8	9
3	4	8	9	5
4	8	9	5	4
5	9	5	4	8
6	8	9	5	4
7	4	8	9	5
8	9	5	4	8
9	5	4	8	9
10	4	8	9	5
11	8	9	5	4
12	9	5	4	8
13	5	4	8	9
14	4	8	9	5
15	8	9	5	4
16	9	5	4	8
17	4	12	40	144

Sum for t

Same m,e at t for both, conveniently