

The hundred square

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

When this cameo was written the notion of visualisation was not considered, but it is clear that the students doing the activity needed to visualise.

Think about what the students were thinking and write down any aspects of visualisation that you think might have been important.

Describe any activities in which you use a hundred square and try to identify the visualisation that probably goes on.

A visual image of a hundred square has the following benefits.

- It stresses the *structure* of tens and units.
- It reinforces the *regularity* of the number system.
- It suggests the *notion of infinity*.
- It supports the understanding of *inverse*.

One of the tables below has the numbers 1–100 starting at the top-left and increasing horizontally.

The other has the numbers 0–99 starting at the bottom-right and increasing vertically.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

99	89	79	69	59	49	39	29	19	9
98	88	78	68	58	48	38	28	18	8
97	87	77	67	57	47	37	27	17	7
96	86	76	66	56	46	36	26	16	6
95	85	75	65	55	45	35	25	15	5
94	84	74	64	54	44	34	24	14	4
93	83	73	63	53	43	33	23	13	3
92	82	72	62	52	42	32	22	12	2
91	81	71	61	51	41	31	21	11	1
90	80	70	60	50	40	30	20	10	0

What are the strengths and the weaknesses of these two tables?