

## Long as you like

You will need a 1-100 grid.

1. Choose a start number. Colour it red.
2. Now choose either a multiple or a factor. Colour it blue.
3. Now choose either a multiple or a factor of that number. Colour it yellow.
4. Now choose either a factor or a multiple of that number. Colour it purple.
5. Now choose either a factor or a multiple of that number. Colour it red.
6. Keep going like this until you get blocked and can't go on.

Your aim is to colour more than 50 squares!

What makes a good starting number? Is it good to colour odd numbers? Or even ones?

What makes a good strategy for your first move? For a second move?

### Challenge

The record is 61 (held by a child at Eleanor Palmer School, London). Can you beat it?

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