

131	132	133	134	135	136	140
121	122	123	124	125	126	130
111	112	113	114	115	116	120
101	102	103	104	105	106	110
61	62	63	64	65	66	100
51	52	53	54	55	56	60
41	42	43	44	45	46	50
31	32	33	34	35	36	40
21	22	23	24	25	26	30
11	12	13	14	15	16	20
1	2	3	4	5	6	10

BASE 7 PRIME FACTORIZATION CHART, created by Sondra Eklund, [sonderbooks.com](http://sonderbooks.com)

## BASE 7 PRIME FACTORIZATION COLORING SHEET INSTRUCTIONS

This is another prime factorization chart, with sections for each factor of each number, but the numbers have been listed in base 7 and arranged in rows of 7.

In base 7, you only use 7 digits, from 0 to 6. After 6, you use the next place over, so after 6 comes 10.

You have a ones digit, then a sevens digit, then a forty-nines digit. You can see how to count in base 7 in the chart.

Color this chart with the same colors as you did the 10x10 prime factorization chart, and you'll have a handy way to translate between the two.

Skip 1, and choose a color for 2. Color a section of every second number with this color.

Choose a color for 3. Color one section of every third number with this color.

$4 = 2 \times 2$ , so you'll need a second section colored in with the color for 2. Color every fourth number with a second section for 2.

Choose a new color for 5. Color every fifth number with this. The interesting thing about base 7 is that 7 itself is prime, and in this chart no color will line up vertically except the color for 7 itself.

6 will already be filled in.

Choose a new color for 10, which is 7 in base 10. and color every seventh number. Since the chart is in rows of 7 these numbers will all be in the same column.

Continue filling in the chart this way. Compare with the charts in the other bases.

You can order a t-shirt of this chart with colors filled in at [www.cafepress.com/sonderbooks](http://www.cafepress.com/sonderbooks)

You can find more coloring sheets at [www.sonderbooks.com/sonderknitting/](http://www.sonderbooks.com/sonderknitting/)