

Looking for a Pattern in Remainders

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Remainder Chart

My divisor is _____

- Work with a partner.
- You will be assigned a divisor number. Place it in the blank above.
- On the TI-15 use the INT \div key to divide each of the numbers in the hundreds chart below by your divisor.
- Start with the number 1 and work your way through the hundreds chart to the number 100
- At each step record the remainder in the first open box in the remainder chart and assign a color to that remainder
- Color the number in the hundreds table to match the remainder color.
- For example: If you do **5 Int \div 2** and the answer has a remainder of 1 you should put the 1 in one of the boxes above, color in that box, and color in the 5 in the hundreds table the same color.

Hundred Chart

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

What patterns do you notice on your hundreds chart?

Why do the colors go in a particular sequence on the hundreds chart?

What happened to the remainder when the dividend increased by one (and the divisor stayed the same)?

What happened when another group used a different divisor? How did the pattern change?

What would you think would happen if you continued beyond 100? Would the pattern continue?

What color would 1000 be?

What general statement could you make about remainders in whole-number division?