

Place Value Roll

Strand:	Number and Number Sense and Computation and Estimation
Topic:	Addition strategies
Primary SOL:	2.6 The student will b) determine sums and differences, using various methods
Related SOL:	2.5

Materials

- Place value roll chart (Hundreds board, 99 board or 200 Hundreds board)
- Number cubes
- Cover disks (Bingo Chip, etc.)

Vocabulary

ones, tens, place value, digit, whole number, period, adding, subtracting, sum, difference

Student/Teacher Actions: What should students be doing? What should teachers be doing?

1. Instruct the starting player to roll the number cubes and add the numbers on the top faces. Students should then cover that number on the chart. *(Example: If one cube is 3, and the other cube is 4, students would then cover the number 7.)*
2. The next player rolls the number cubes, and the process repeats.
3. On the starting player's second turn, he or she rolls the number cubes and adds the total to the sum rolled on the first turn. (To score totals greater than 10, the player can use two number cubes.)
4. Have players alternate turns until one player reaches 99 or higher.

Assessment

- **Questions**
 - What strategies did you use to add? *(add on, double, estimate, paper and pencil)*
 - How could you check your answers? *(paper and pencil, calculator, subtraction)*
- **Journal/writing prompts**
 - What patterns did you notice on the board that were helpful?
 - What strategies did you use that were helpful?
 - Your chip sits on the number 84. What do you want to roll to help you get to 100? Explain your thinking.

Extensions and Connections (for all students)

- Start at 99, and subtract the roll value of the number cubes instead of adding. The first player to reach zero wins.
- Use a 6 or 12-sided number generator.
- Use three number cubes on a 200s chart

Strategies for Differentiation

- Give each pair a calculator to check answers in the beginning. Or, assign a third student to check answers.
- Students who struggle may start with basic facts and work to reach 50 (or an appropriate number).

Note: The following pages are intended for classroom use for students as a visual aid to learning.

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Hundreds Board

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

Hundreds Board 0-99

0	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

Two-hundreds Board

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
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200