

## Number Strings for Grades 3 – 5

There are more strings in

*Number Talks Helping Children Build Mental Math and Computational Strategies* by Sherry Parrish

### ADDITION

Strategy: Making tens

Introducing the strategy	7 + 3	5 + 5	3 + 8 + 7
	7 + 5 + 3	5 + 6 + 5	9 + 1 + 2
	3 + 6 + 7	5 + 9 + 5	4 + 9 + 6
Using the strategy	4 + 6 + 8 + 2	3 + 8 + 5 + 5 + 2	2 + 6 + 8 + 3 + 4
	9 + 3 + 1 + 7	9 + 1 + 6 + 3 + 4	9 + 3 + 1 + 5 + 5
	5 + 6 + 5 + 4	7 + 2 + 3 + 5 + 8	4 + 8 + 6 + 2 + 7
Extending the Strategy	9 + 1	10 + 5	10 + 13
	9 + 1 + 4	8 + 5	7 + 13
	9 +	10 + 7	10 + 25
	9 + 8	8 + 7	7 + 25

Strategy: Making landmark or friendly numbers

Introducing the strategy	19 + 2	25 + 25	99 + 5
	19 + 5	25 + 26	99 + 15
	19 + 8	24 + 26	99 + 26
	19 + 12	26 + 49	99 + 51
Using the strategy	8 + 5	48 + 6	48 + 4 + 48
	8 + 13	48 + 17	48 + 49 + 3
	8 + 24	23 + 48	98 + 97 + 5
	18 + 7	48 + 47	99 + 98 + 97 + 5
Extending the Strategy	99 + 38	198 + 7	999 + 99
	98 + 47	199 + 13	998 + 49
	98 + 99	148 + 27	997 + 199
	99 + 99 + 5	139 + 43	199 + 99 + 49

Strategy: Doubles/near doubles

Introducing the strategy	5 + 5	9 + 9	15 + 15
	5 + 6	8 + 9	15 + 16
	5 + 7	8 + 8	17 + 15
	5 + 8	8 + 7	15 + 18
Using the strategy	20 + 20	35 + 35	100 + 100
	19 + 19	35 + 36	99 + 99
	19 + 18	34 + 35	99 + 98
	19 + 17	36 + 37	99 + 97
Extending the Strategy	200 + 200	250 + 250	1000 + 1000
	199 + 199	249 + 249	999 + 999
	198 + 199	249 + 248	998 + 999
	198 + 198	248 + 248	998 + 998

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### ADDITION

Strategy: Breaking each number into its place value

Introducing the strategy	$28 + 11$	$22 + 18$	$27 + 15$
	$14 + 35$	$15 + 26$	$35 + 26$
	$22 + 15$	$17 + 28$	$17 + 33$
	$18 + 31$	$16 + 26$	$25 + 38$
Using the strategy	$74 + 18$	$113 + 56$	$135 + 219$
	$58 + 28$	$122 + 37$	$315 + 192$
	$37 + 26$	$114 + 44$	$167 + 173$
	$46 + 38$	$121 + 48$	$115 + 293$
Extending the Strategy	$365 + 247$	$146 + 277$	$111 + 999$
	$138 + 292$	$216 + 188$	$222 + 888$
	$168 + 254$	$255 + 267$	$333 + 777$
	$292 + 139$	$185 + 146$	$444 + 777$

Strategy: Adding up in chunks

Introducing the strategy	$16 + 10$	$32 + 10$	$53 + 20$
	$16 + 20$	$32 + 30$	$53 + 25$
	$16 + 40$	$32 + 50$	$53 + 40$
	$16 + 42$	$32 + 55$	$53 + 42$
Using the strategy	$18 + 10$	$65 + 30$	$73 + 30$
	$18 + 13$	$65 + 36$	$73 + 38$
	$18 + 20$	$65 + 50$	$73 + 50$
	$18 + 23$	$65 + 57$	$73 + 58$
Extending the Strategy	$56 + 40$	$25 + 60$	$218 + 200$
	$56 + 50$	$25 + 66$	$218 + 400$
	$156 + 40$	$125 + 60$	$218 + 450$
	$156 + 43$	$125 + 68$	$218 + 456$

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### SUBTRACTION

Strategy: Adding up

Introducing the strategy	20-15	60 – 54	100 – 89
	20-14	60 – 49	100 – 74
	20 – 9	60 – 39	100 – 49
	20 – 8	60 – 29	100 – 44
Using the strategy	250 – 224	300 – 269	1000 – 899
	250 – 219	300 – 249	1000 – 749
	200 – 199	300 – 99	1000 – 624
	200 – 149	300 - 149	1000 – 499
Extending the Strategy	50 – 29	100 – 80	500 – 249
	55 – 29	140 – 80	525 – 249
	55 – 48	146 – 80	1000 – 499
	55 – 37	146 – 89	1000 – 671

Strategy: Removal or counting back

Introducing the strategy	35 – 10	57 – 20	98 – 50
	35 – 13	57 – 26	98 – 55
	35 – 20	53 – 30	98 – 70
	35 - 22	53 - 33	98 - 79
Using the strategy	23 – 10	51 – 30	91 – 60
	23 – 14	51 – 35	91 – 63
	23 – 18	55 – 20	94 – 50
	23 – 15	55 – 26	94 – 56
Extending the Strategy	100 – 50	200 – 100	543 – 20
	100 – 52	200 – 150	543 – 100
	100 – 60	200 – 153	543 – 120
	100 – 64	200 – 153	543 – 240

Strategy: Place value and negative numbers

Introducing the strategy	5 – 5	20 – 10	20 – 10
	5 – 6	0 – 4	5 – 6
	5 – 7	20 – 14	25 – 16
	5 – 8		
Using the strategy	40 – 20	50 – 10	90 – 50
	8 – 9	3 – 7	6 – 7
	48 – 29	53 – 17	81 – 38
	44 – 26	54 – 26	83 – 44
Extending the Strategy	0 – 6	400 – 200	1000 – 700
	100 – 40	40 – 50	0 – 10
	100 – 46	4 – 6	0 – 5
	100 - 19	444 – 256	1000 – 715
	413 – 135	1000 – 674'	

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### SUBTRACTION

Strategy: Adjusting one number to make an easier problem

Introducing the strategy	9 – 4	51 – 25	99 – 73
	10 – 4	50 – 25	100 – 73
	19 – 14	49 – 25	100 – 64
	20 – 14	52 – 25	100 – 82
Using the strategy	20 – 10	50 – 25	100 – 50
	20 – 9	50 – 24	100 – 51
	20 – 11	50 – 26	100 – 49
	21 – 9	50 – 19	100 – 52
Extending the Strategy	49 – 28	75 – 40	199 – 98
	50 – 30	79 – 39	200 – 100
	50 – 28	75 – 39	200 – 98
	53 – 28	77 – 39	203 – 99

Strategy: Keeping a constant difference

Introducing the strategy	14 – 10	50 – 25	100 – 51
	13 – 9	49 – 24	99 – 50
	14 – 7	51 – 26	100 – 36
	15 – 6	71 – 36	100 – 48
Using the strategy	101 – 50	153 – 100	498 – 310
	99 – 48	151 – 98	500 – 312
	100 – 49	173 – 160	499 – 366
	109 – 51	171 – 158	500 – 367
Extending the Strategy	32 – 19	133 – 95	300 – 214
	48 – 29	114 – 89	500 – 289
	35 – 18	123 – 105	700 – 477
	41 – 13	100 – 34	1000 – 674

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### MULTIPLICATION

Strategy: Making landmark of friendly numbers

Introducing the strategy	2 X 25	5 X 5	4 X 5
	4 X 25	5 X 10	4 X 10
	6 X 25	5 X 20	4 X 50
		5 X 19	4 X 49
Using the strategy	4 X 25	6 X 50	8 X 50
	4 X 200	6 X 300	8 X 100
	4 X 250	6 X 349	8 X 200
	4 X 249		8 X 199
Extending the Strategy	6 X 20	2 X 25	6 X 600
	30 X 20	4 X 25	10 X 600
	36 X 20	8 X 25	16 X 600
	36 X 19	20 X 25	16 X 599
		16 X 25	

Strategy: Making landmark of friendly numbers

Introducing the strategy	2 X 25	5 X 5	4 X 5
	4 X 25	5 X 10	4 X 10
	6 X 25	5 X 20	4 X 50
		5 X 19	4 X 49
Using the strategy	4 X 25	6 X 50	8 X 50
	4 X 200	6 X 300	8 X 100
	4 X 250	6 X 349	8 X 200
	4 X 249		8 X 199
Extending the Strategy	6 X 20	2 X 25	6 X 600
	30 X 20	4 X 25	10 X 600
	36 X 20	8 X 25	16 X 600
	36 X 19	20 X 25	16 X 599
		16 X 25	

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### MULTIPLICATION

Strategy: Doubling and halving

Introducing the strategy	1 X 16	1 X 48	1 X 56
	2 X 8	2 X 24	2 X 28
	4 X 4	4 X 12	4 X 14
	8 X 2	8 X 6	8 X 7
	16 X 1	16 X 3	
Using the strategy	8 X 16	84 X 5	8 X 29
	4 X 32	42 X 10	4 X 58
	2 X 64	21 X 20	2 X 116
Extending the Strategy	3 X 60	4 X 120	2 X 1440
	6 X 30	8 X 60	4 X 720
	12 X 15	16 X 30	8 X 360
		32 X 15	16 X 180
			32 X 90
Extending the Strategy Tripling and quadrupling	9 X 12	25 X 48	6 X 24
	3 X 36	100 X 12	3 X 48
	1 X 108	400 X 3	1.5 X 96
		1200 X 1	

Strategy: Breaking factors into smaller factors

Introducing the strategy	2 X 3 X 4	2 X 3 X 2 X 3	5 X 2 X 4
	4 X 3 X 2	3 X 3 X 4	4 X 5 X 2
	6 X 4	9 X 2 X 2	2 X 2 X 5 X 2
Using the strategy		9 X 4	8 X 5
	3 X 5 X 4	8 X 9 X 3	9 X 10 X 3
	2 X 15 X 2	3 X 24 X 3	5 X 6 X 3 X 3
	15 X 4	9 X 12 X 2	15 X 2 X 9
Extending the Strategy		24 X 9	30 X 9
	3 X 4 X 25	6 X 6 X 3 X 5	2 X 35 X 6
	5 X 12 X 5	6 X 5 X 3 X 6	12 X 5 X 7
	5 X 2 X 25	4 X 15 X 9	3 X 4 X 5 X 7
	12 X 25	36 X 15	12 X 35

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### DIVISION

Strategy: Partial quotients

Introducing the strategy	$40 \div 4$	$30 \div 3$	$5 \div 5$
	$16 \div 4$	$90 \div 3$	$10 \div 5$
	$56 \div 4$	$92 \div 3$	$25 \div 5$
Using the strategy	$50 \div 5$		$77 \div 5$
	$300 \div 3$	$100 \div 4$	$160 \div 8$
	$120 \div 3$	$40 \div 4$	$16 \div 8$
	$420 \div 3$	$24 \div 4$	$400 \div 8$
		$4 \div 4$	$80 \div 8$
	$124 \div 4$	$496 \div 8$	
Extending the Strategy	$100 \div 25$	$130 \div 13$	$30 \div 15$
	$250 \div 25$	$26 \div 13$	$90 \div 15$
	$500 \div 25$	$52 \div 13$	$300 \div 15$
		$195 \div 13$	$150 \div 15$
			$540 \div 15$

Strategy: Multiplying up

Introducing the strategy	$4 \times 10$	$2 \times 10$	$6 \times 10$
	$4 \times 5$	$2 \times 5$	$6 \times 5$
	$4 \times 4$	$2 \times 2$	$6 \times 6$
	$56 \div 4$	$38 \div 2$	$6 \times 2$
			$99 \div 6$
Using the strategy	$3 \times 100$	$8 \times 100$	$7 \times 100$
	$3 \times 50$	$8 \times 50$	$7 \times 10$
	$3 \times 1$	$8 \times 10$	$7 \times 5$
	$453 \div 3$	$792 \div 8$	$7 \times 2$
			$836 \div 7$
Extending the Strategy	$50 \times 2$	$24 \times 5$	$10 \times 27$
	$50 \times 5$	$24 \times 10$	$20 \times 27$
	$50 \times 10$	$24 \times 20$	$30 \times 27$
	$900 \div 50$	$756 \div 24$	$825 \div 17$

Strategy: Multiplying up

	$100 \div 4$	$250 \div 2$	$308 \div 7$
	$200 \div 8$	$500 \div 4$	$308 \div 14$
	$400 \div 16$	$1000 \div 8$	$308 \div 28$