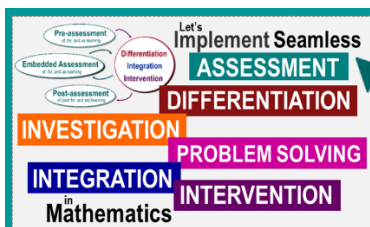


Add and Subtract Tens Numbers

Counting by 10s ↖



INVESTIGATIONS OVERVIEW PAGE

THIS PAGE IS A SUMMARY OF THE INVESTIGATIONS THAT STUDENTS MAY ENGAGE IN TO DEEPEN THEIR RELATIONAL UNDERSTANDING.

INVESTIGATIONS WITH INSTRUCTIONS TO STUDENTS FOLLOW ON SUBSEQUENT PAGES.

- Children select 2 cards to use as tens numbers. They add the tens numbers together by counting forward by tens on the decade. **Reflection:** How can we add tens numbers?
- Children select 2 cards to use as tens numbers. They subtract the tens numbers by counting backward by tens on the decade. **Reflection:** How can we subtract tens numbers?
- Children use a calculator to add 2 tens numbers, then check by counting forwards by 10s. **Reflection:** How can we add tens numbers?
- Children use a calculator to subtract a tens number from another tens number, then check by counting backwards by 10s. **Reflection:** How can we subtract tens numbers?
- Children cut a hundred chart into rows and join them together to make a long number line between 1 and 100, for example,



This allows children to identify that a hundred chart is a number line. The only reason it is in rows is because rows are easier to carry around and manipulate than one long row. **Reflection:** What is a hundred chart?

- Children cut a hundred chart into parts like a jigsaw puzzle. The number of parts depends on each child's current level of understanding. Children put the hundreds chart back together. Children explain to a friend how they knew where each part went. Children swap charts with a friend. Children put their friend's chart back to together. **Reflection:** What is a hundred chart?
- In pairs, children place a counter on 2 tens numbers. They count forwards by 10s to work how many tens they need to add to the lower tens number to make the higher tens number. They count backwards by 10s to work how many tens they need to subtract from the higher tens number to make the lower tens number. **Reflection:** How can we add or subtract 10s on a hundred chart?
- Children play 'tracks' with a friend, recording an addition or subtraction for each arrow. One child places a counter onto a tens number on the hundred chart. They draw arrows for their friend to follow to a new number. Their friend follows the arrows, recording an addition or subtraction for each arrow, and tells their friend what number they ended on. **Reflection:** How can we add or subtract 10s on a hundred chart?

Add and Subtract Tens Numbers Counting by 10s

Select 2 cards to make tens numbers to add.

Add the tens numbers by counting forwards by tens.

Record your count on a number line.

Select an Ace and another card to make a tens number in the 100s, and another card to make a tens number to subtract.

Subtract the tens numbers by counting backwards by tens.

Record your count on a number line.

Reflection: How can we add and subtract tens numbers?

Add and Subtract Tens Numbers Counting by 10s

Sit with a friend.

Add 2 tens numbers on a calculator.

Check your answer by counting forwards by 10s on a number line.

Explain your strategy to a friend.

Reflection: How can we add tens numbers?

Add and Subtract Tens Numbers Counting by 10s

Sit with a friend.

Subtract a tens number from another tens number on a calculator.

Check your answer by counting backwards by 10s on a number line.

Explain your strategy to a friend.

Reflection: How can we subtract tens numbers?

Add and Subtract Tens Numbers Counting by 10s

Cut a hundred chart into rows.

Join the rows together to make a long number line between 1 and 100, for example,



Is a hundred chart a number line?

Why is a hundred chart joined into 10 rows, instead of 1 long row?

Is it because rows are easier to carry around and manipulate than one long row.

Reflection: What is a 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

Add and Subtract Tens Numbers Counting by 10s

Cut a hundred chart into parts like a jigsaw puzzle, for example,

Put the hundreds chart back together.

Swap charts with a friend.

Put your friend's chart back to together.

Reflection: What is a 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

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

Add and Subtract Tens Numbers Counting by 10s

Place 2 counters on 2 tens numbers on a hundred chart.

Count forwards by 10s to work how many tens you need to add to the lower tens number to make the higher tens number.

Count backwards by 10s to work how many tens you need to subtract from the higher tens number to make the lower tens number.

Reflection: How can we add or subtract 10s on a 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

Add and Subtract Tens Numbers Counting by 10s

Record a tens number and some vertical arrows upwards or downwards, for example, 50



Show it to friend.

Have your friend start on the number, and count forwards or backwards by 10s to work out what number they will end on, for example, 50, 60, 70, 80, 90

Record on a number line.

Record as an addition or a subtraction number sentence, for example, $50 + 40 = 90$

Reflection: How can we add or subtract 10s on a 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