



# Maths

## Addition and Subtraction

# Need a coherently planned sequence of lessons to complement this resource?

**Lesson Breakdown**

Below is our suggestion for the most coherent and progressive sequence to teach this area of PlanIt Maths steps on the White Rose Maths scheme of learning although we have not aimed to mirror the exact order in which the resources are presented.

**Recall and Use Facts (1): Number Facts up to 10**  
This computer game themed lesson is designed to help children secure their understanding of number facts. Children use a range of methods to investigate and check if they are correct. Differentiated activity sheets and mastery cards to help children.

**NC Statement:** Recall and use facts to 20 fluently and derive and use related facts up to 100.  
**Lesson Aim:** To recall and use number facts up to 10.

**Recall and Use Facts (2): Number Facts up to 20**  
This lesson teaches children to use familiar number facts to solve and create problems. Children are encouraged to use different representations to support their learning. Differentiated activity sheets and mastery cards to help children develop fluency.

**NC Statement:** Recall and use facts to 20 fluently and derive and use related facts up to 100.  
**Lesson Aim:** To recall and use number facts up to 20.

**Solve Problems (1): Using Different Representations to Solve Problems**  
Children learn to solve addition and subtraction problems using concrete objects and pictorial representations, including those involving numbers, quantities and measures, applying their increasing knowledge of mental and written methods. This lesson includes Diving into Mastery activity cards with fluency resources.

**NC Statement:** Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures, applying their increasing knowledge of mental and written methods.  
**Lesson Aim:** To solve addition and subtraction problems using objects, pictures and models.

**Introduction**

In this unit, children will learn to recall and use addition and subtraction facts. They use a variety of different models, images and equipment to build their number sense, enabling them to use facts flexibly. They learn different strategies to help them add and subtract numbers efficiently, explaining their methods with concrete resources or jottings. Methods include: adding a unit to a ten, adding three single-digit numbers and adding and subtracting multiples of ten leading to pairs of two-digit numbers. They find the difference between numbers and reason about when it is quicker to find the difference or take away. They build up their understanding of commutativity and inverse relationships, using these to solve increasingly complex missing number problems. They apply their learning to problem-solving, and are able to ask questions, explain their choices and demonstrate their methods.

**Resources**  
In addition to your standard maths resources, you will need:

- digital cameras

**Assessment Statements**  
By the end of this unit;

children working towards the expected level will be able to:

- recall and use at least four out of six number facts to ten and derive their associated subtraction facts;
- add and subtract two-digit numbers and ones, and two-digit numbers and tens, where no regrouping is required;
- explain their addition and subtraction methods verbally, in pictures or using apparatus;
- understand that two numbers can be added in any order and the answer will be the same.

children working at the expected level will be able to:

- recall number facts to add and within ten and subtraction facts. Use these to derive number facts to add and within 20 and 100;
- add and subtract within 100: a two-digit number and ones, a two-digit number and tens, two two-digit numbers;
- add three one digit numbers using efficient methods;
- understand that addition is commutative but subtraction is not, and explain what this means;
- use the inverse relationship between addition and subtraction to solve problems and check their calculations;
- solve addition and subtraction problems in context of quantities and measures, using pictures and mentally.

**Addition and Subtraction**  
Maths | Year 2 | Steps to Progression Overview

The aim of this overview is to support teachers using PlanIt Maths to show the most coherent and progressive sequence to teach each area of maths. We also want to fully support teachers who use the White Rose Maths scheme of learning to make full use of the resources available within PlanIt Maths. Wherever possible, lesson packs have been matched to each of the small steps on the White Rose Maths scheme of learning.

**Yearly Overview**

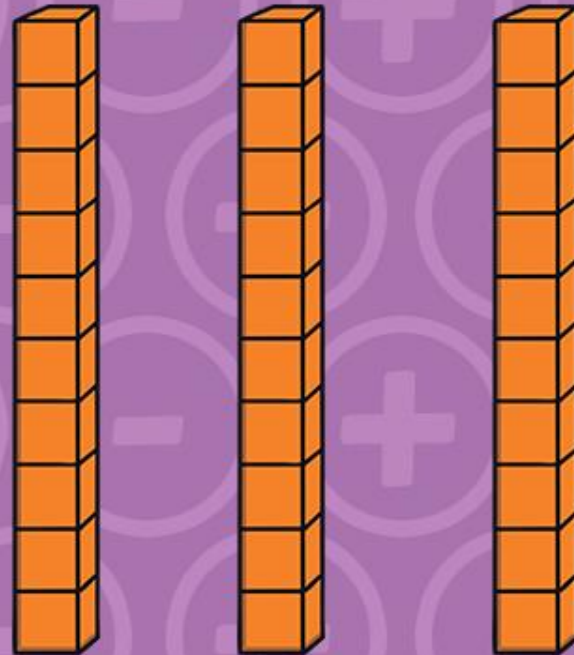
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value		Number: Addition and Subtraction					Measurement: Money		Number: Multiplication and Division		
Spring	Number: Multiplication and Division		Statistics		Geometry: Properties of Shape			Number: Fractions		Measurement: Length and Height		
Summer	Position and Direction		Problem Solving and Efficient Methods		Measurement: Time		Measurement: Mass, Capacity and Temperature		Investigations			

See our [Addition and Subtraction Steps to Progression](#) document.

Twinkl PlanIt is our award-winning scheme of work with over 4000 resources.



# Add and Subtract a 2-Digit Number and a Multiple of 10



twinkl

# Aim

- To add and subtract a multiple of 10 to and from any 2-digit number.

# Success Criteria

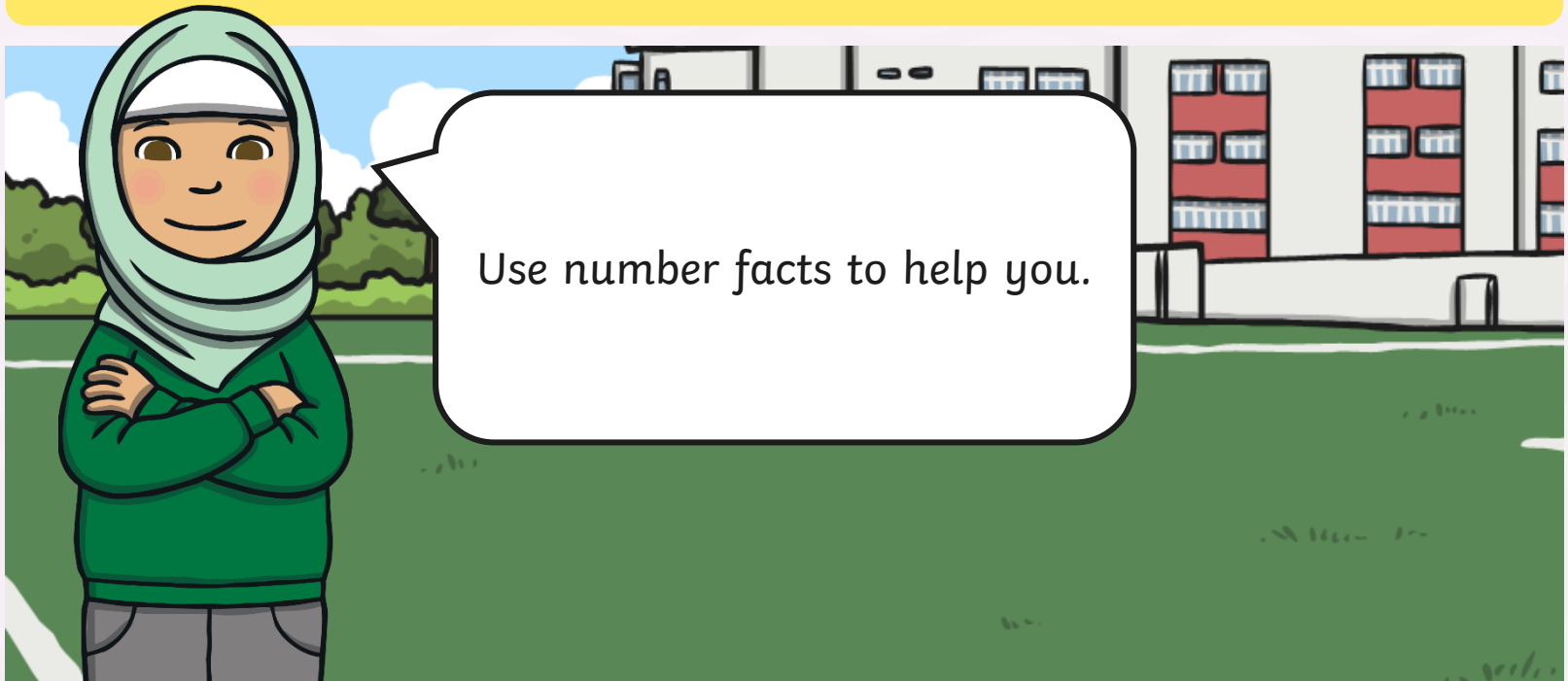
- I can use number facts to add a multiple of ten to any 2-digit number.
- I can use number facts to subtract a multiple of ten from any 2-digit number.
- I can use patterns to add a multiple of ten to any 2-digit number.
- I can use patterns to subtract a multiple of ten from any 2-digit number.

# Remember It



Spin the spinners to show multiples of ten.

The symbol will show you whether to add or subtract the numbers.

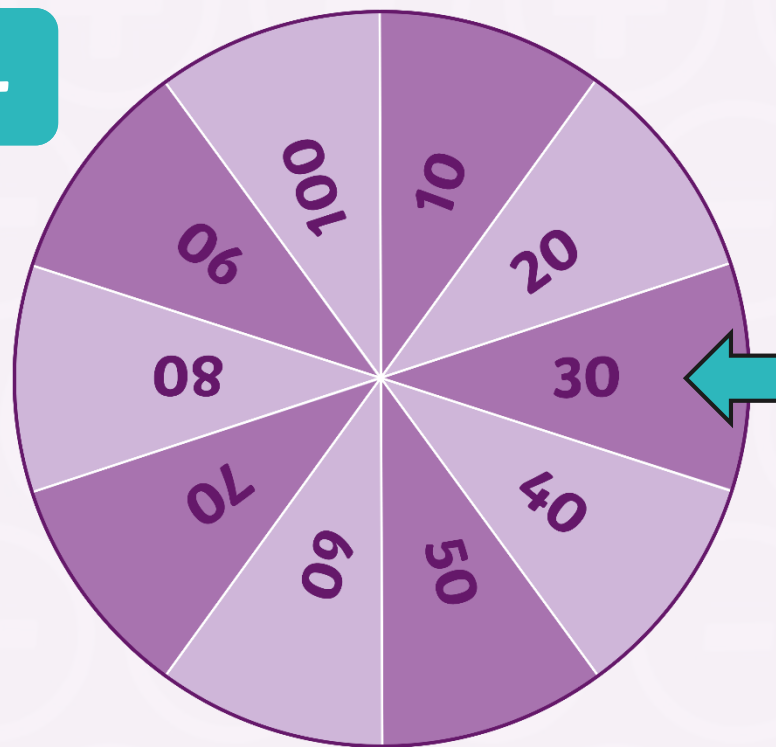
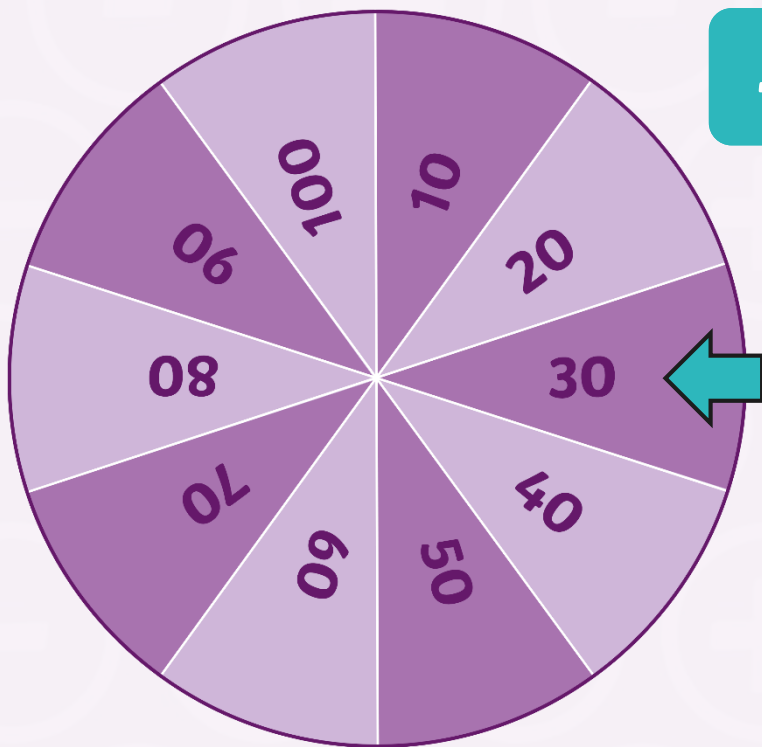


Use number facts to help you.

# Remember It



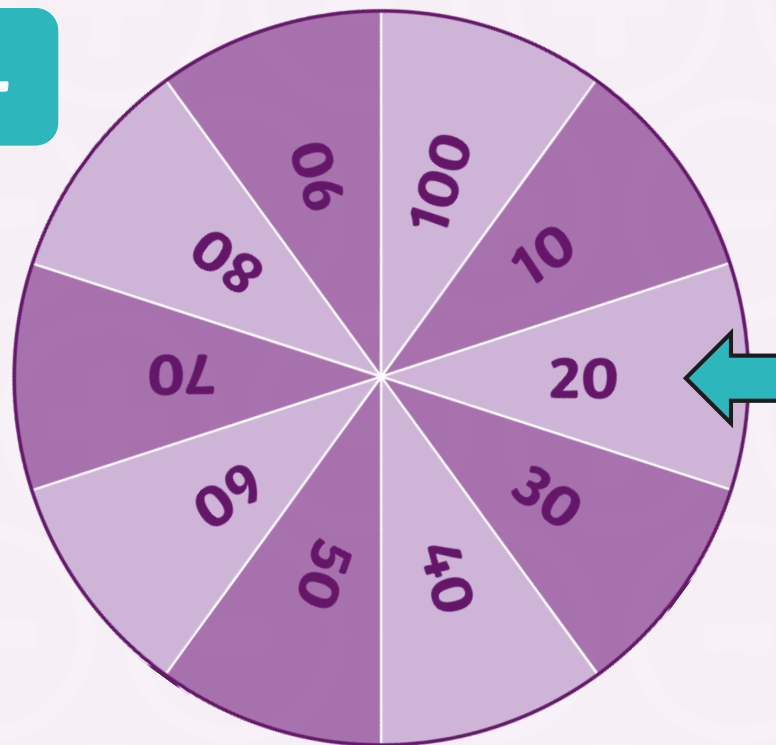
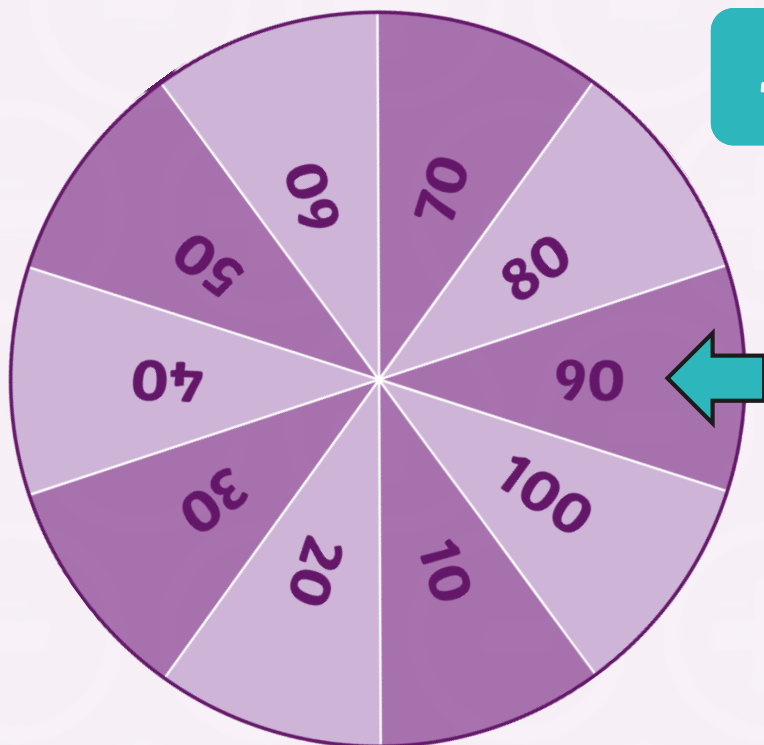
$$10 + 10 = 20$$



# Remember It



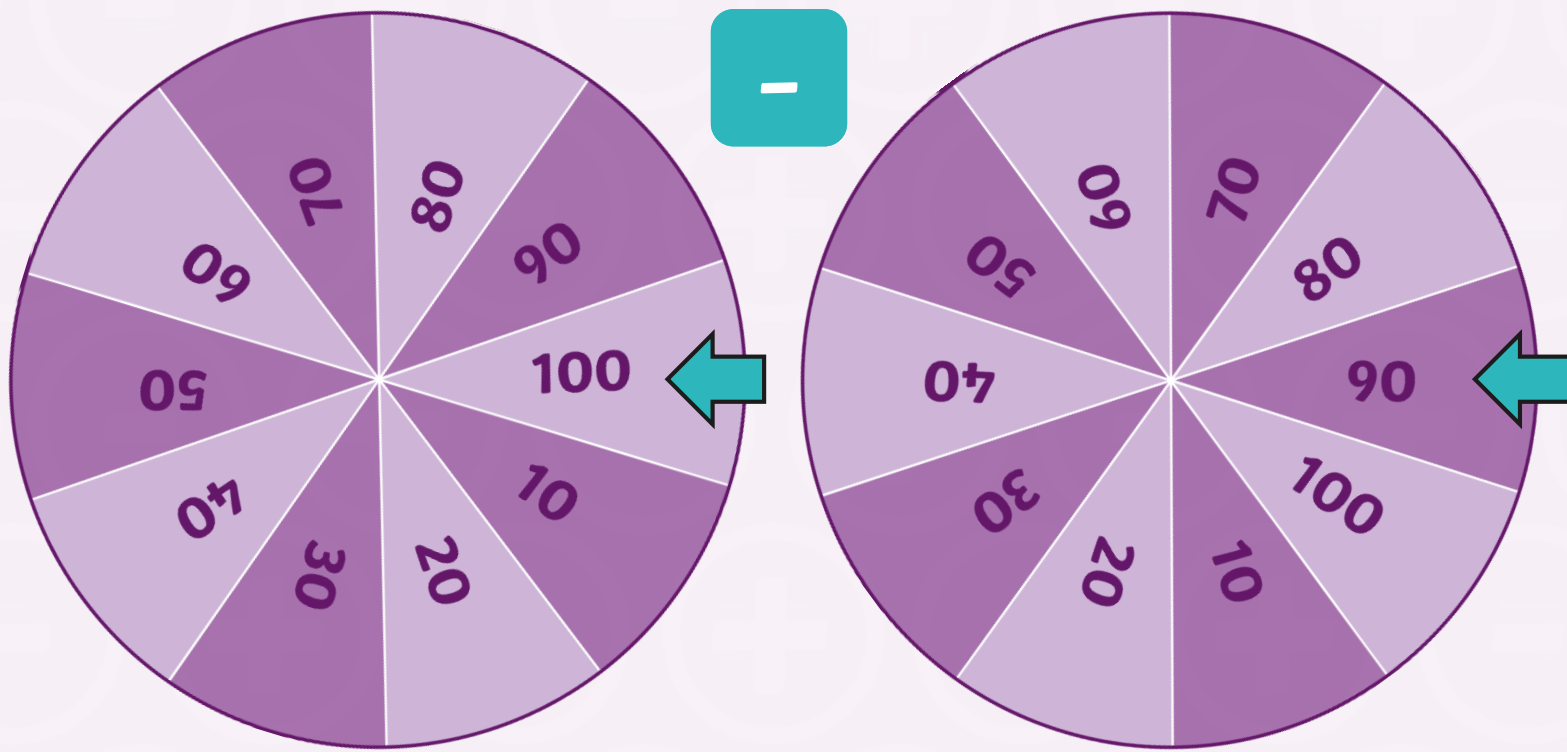
$$20 - 10 = 10$$



# Remember It



$$20 + 10 = 30$$

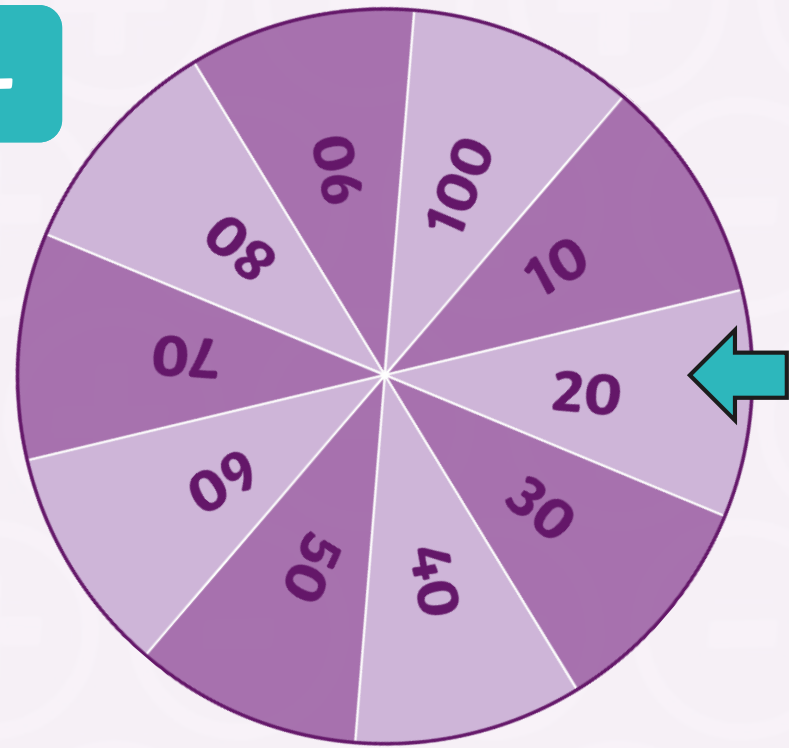
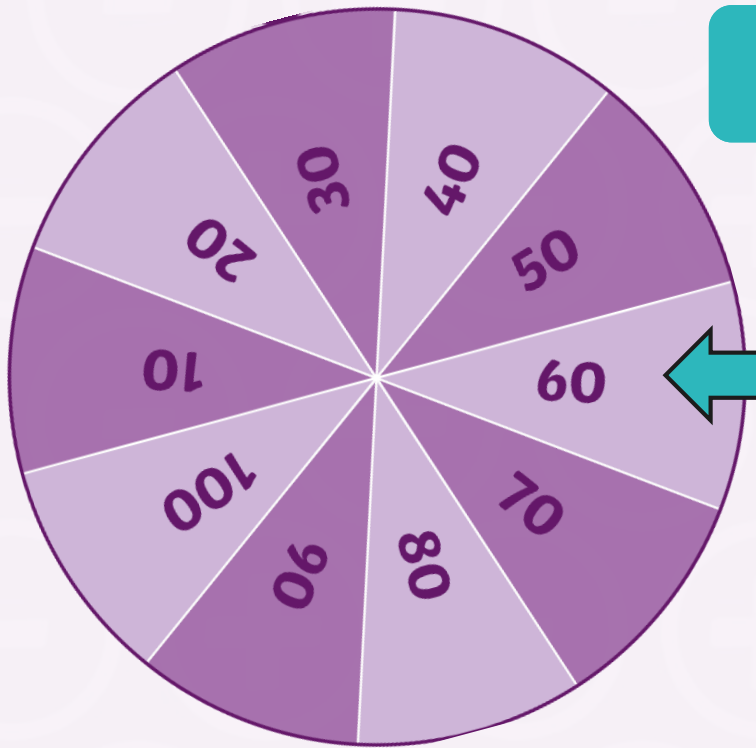




# Remember It



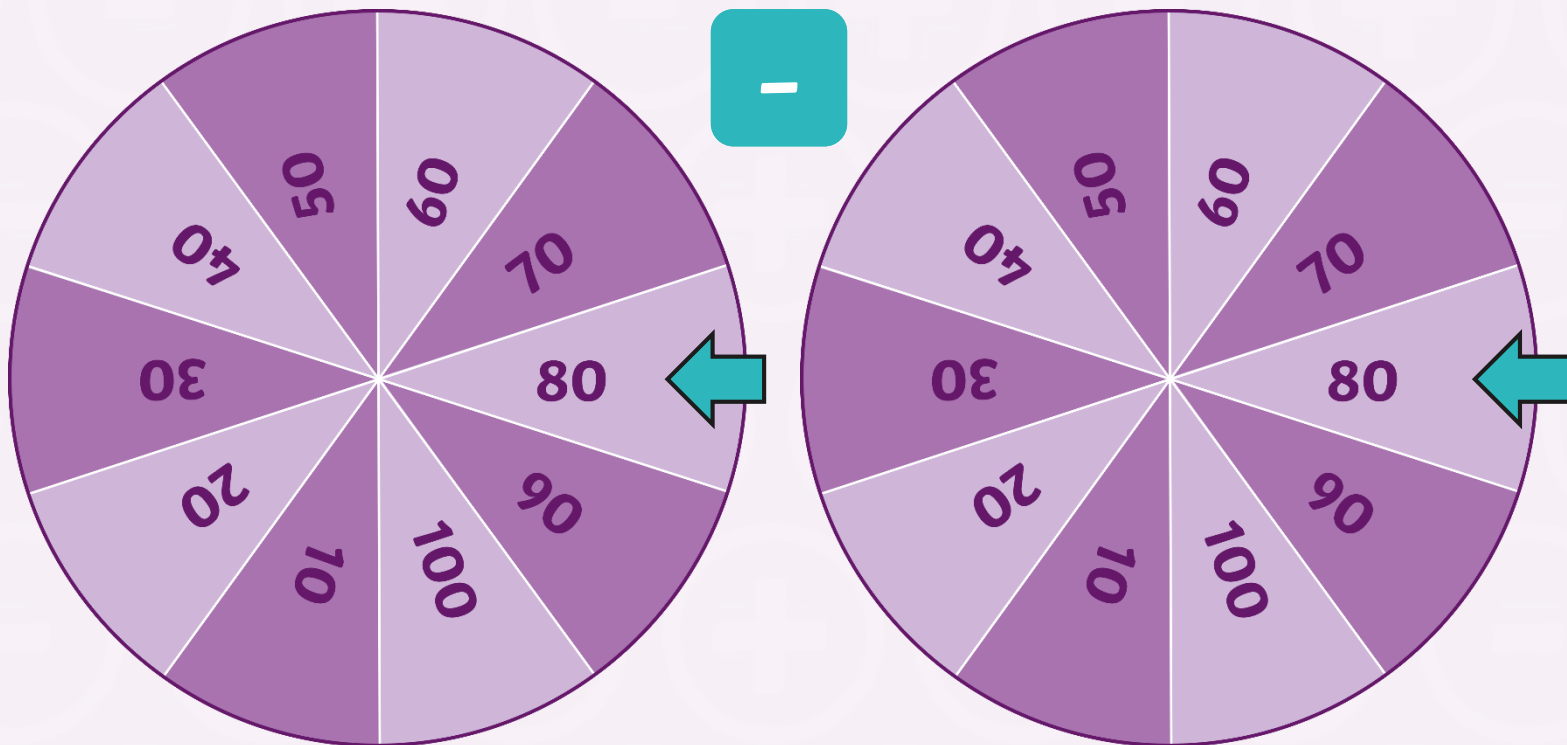
$$30 - 10 = 20$$



# Remember It



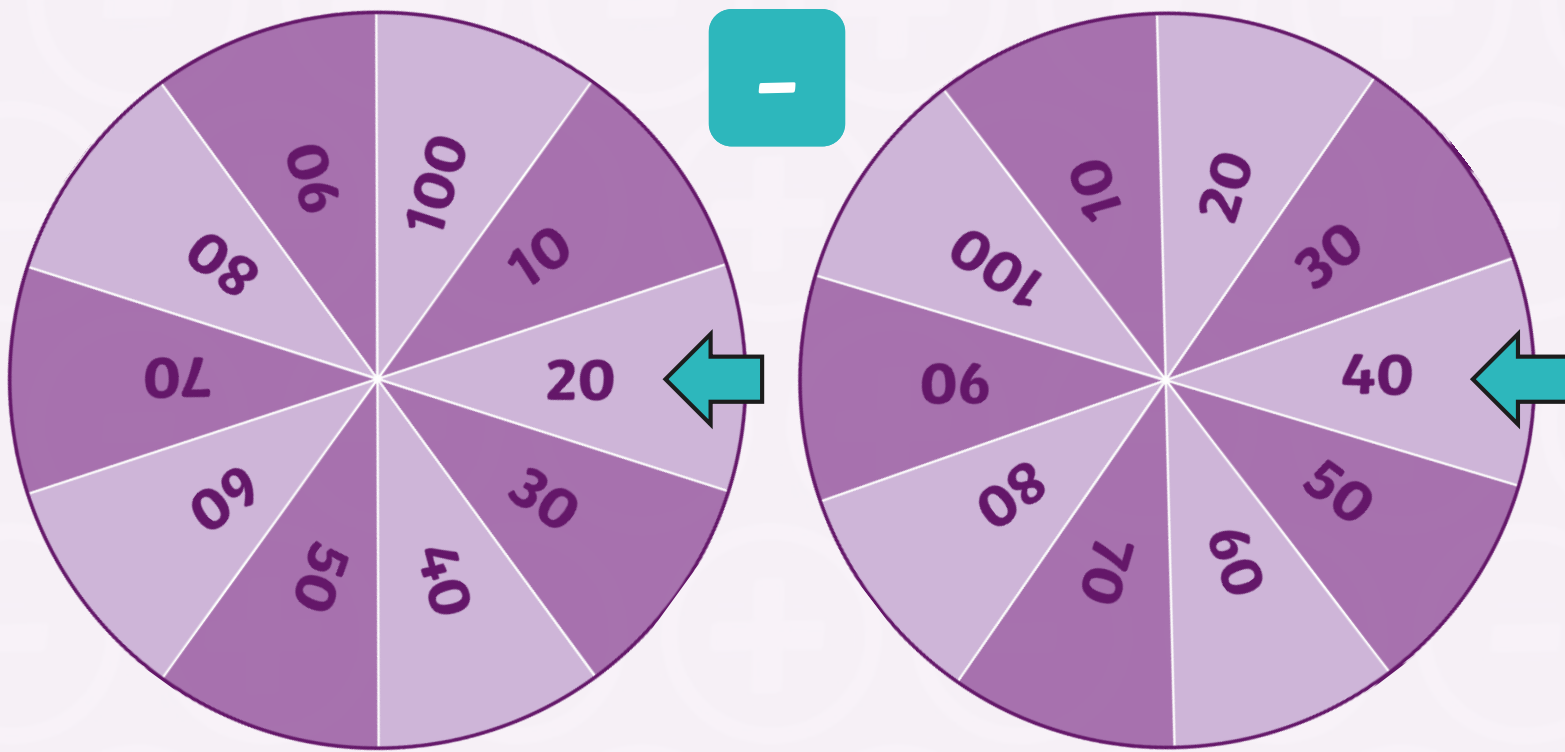
$$30 + 10 = 40$$



# Remember It



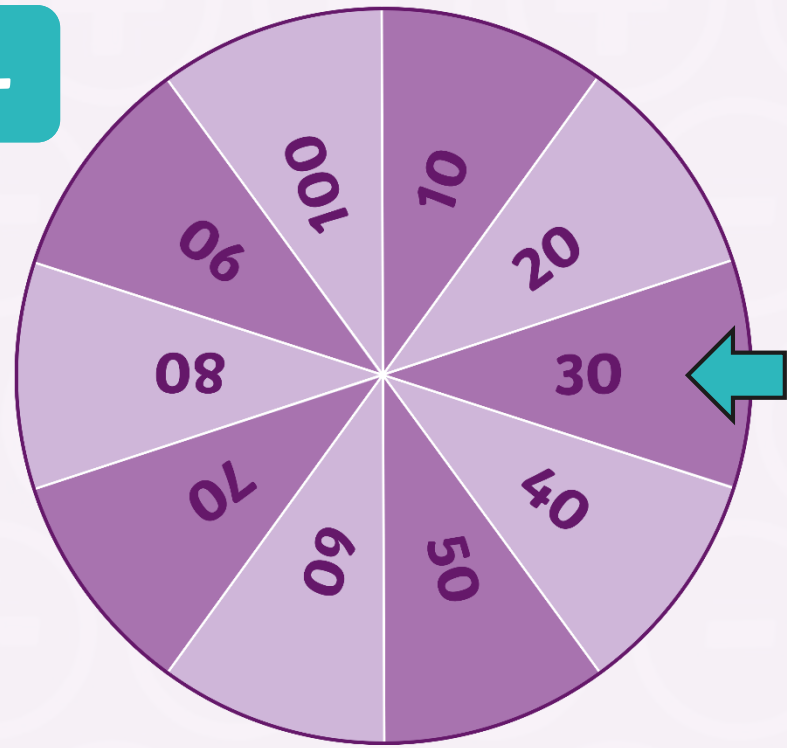
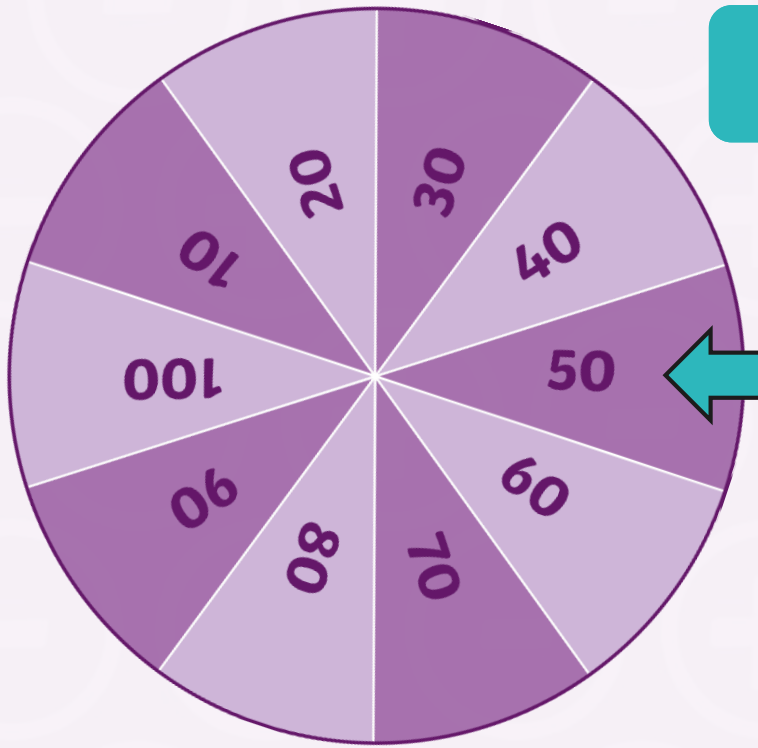
$$40 - 10 = 30$$



# Remember It



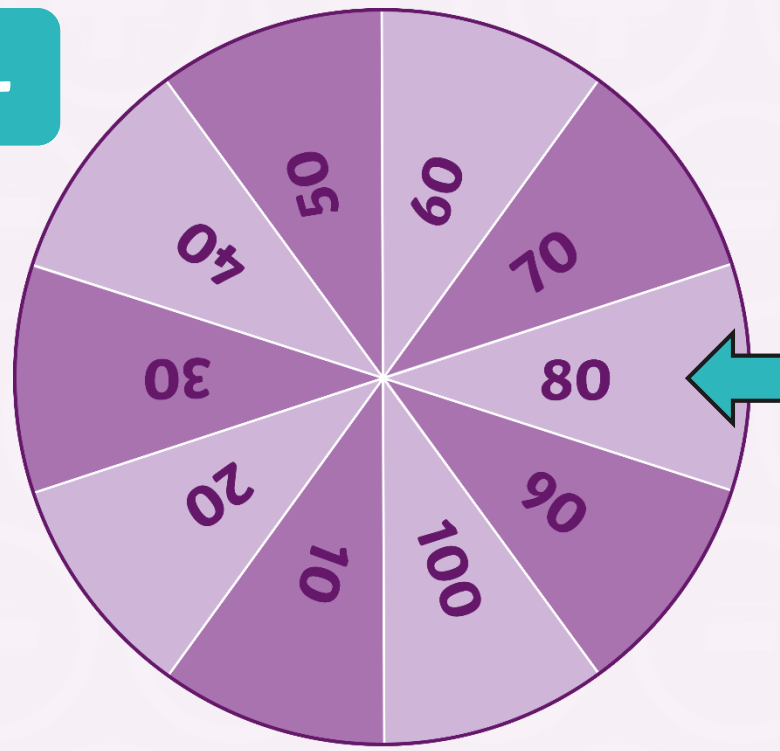
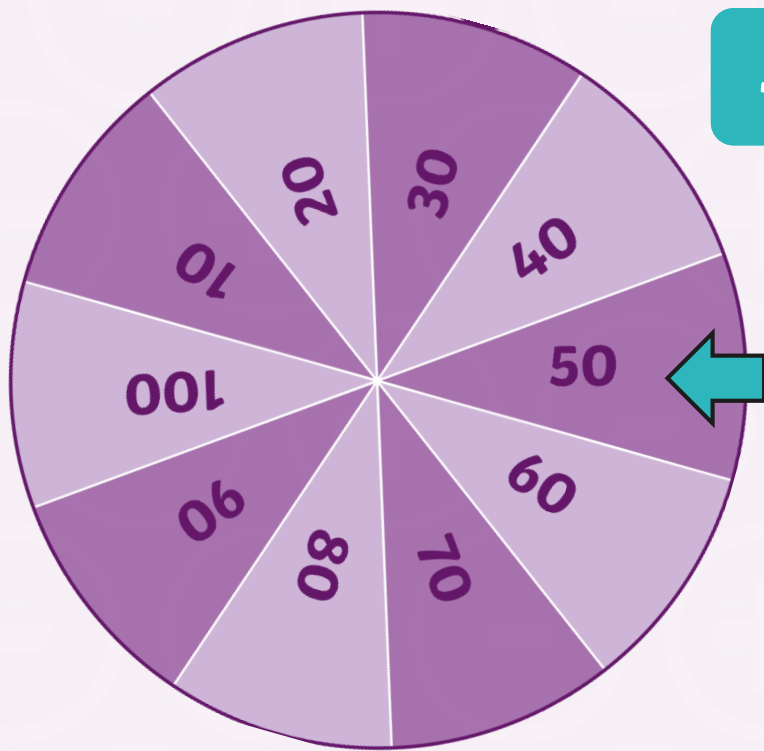
$$40 + 10 = 50$$



# Remember It



$$50 - 10 = 40$$



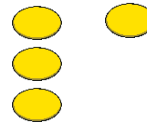
# Addition Pattern Builders



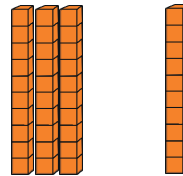
What is the same about these calculations?  
What is different?



$$3 + 1 = 4$$



$$30 + 10 = 40$$



**3 tens plus 1 ten equals 4 tens.**

We can use number facts to help us add tens.

# Addition Pattern Builders



Can you continue  
the pattern?



$$10 + 10 = 20$$

$$20 + 10 = 30$$

$$30 + 10 = 40$$

$$40 + 10 = 50$$

$$50 + 10 = 60$$

$$60 + 10 = 70$$

$$70 + 10 = 80$$

$$80 + 10 = 90$$

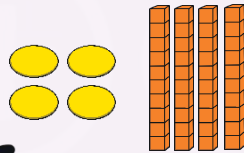
# Addition Pattern Builders



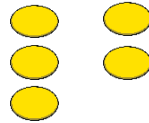
Use number facts and patterns to add tens.

Use equipment, jottings or calculations to help.

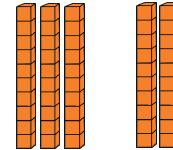
If I know  $2 + 2 = 4$ , then  
I know  $20 + 20 = 40$ .



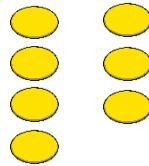
$$3 + 2 = 5$$



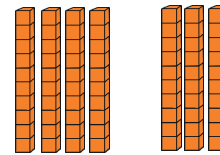
$$30 + 20 = 50$$



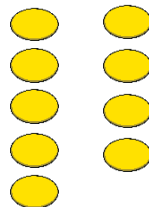
$$4 + 3 = 7$$



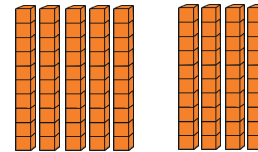
$$40 + 30 = 70$$



$$5 + 4 = 9$$



$$50 + 40 = 90$$





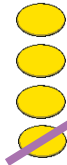
# Subtraction Pattern Builders



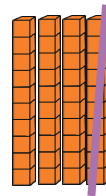
Did you spot a pattern to help you?



$$4 - 1 = 3$$



$$40 - 10 = 30$$



**4 tens subtract 1 ten equals 3 tens.**

We can use number facts to help us subtract tens.

# Subtraction Pattern Builders



Can you continue  
the pattern?



$$90 - 10 = 80$$

$$80 - 10 = 70$$

$$70 - 10 = 60$$

$$60 - 10 = 50$$

$$50 - 10 = 40$$

$$40 - 10 = 30$$

$$30 - 10 = 20$$

$$20 - 10 = 10$$

$$10 - 10 = 0$$

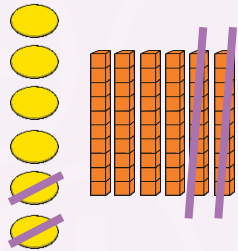
# Subtraction Pattern Builders



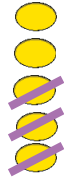
Use number facts and patterns to subtract tens.

Use equipment, jottings or calculations to help.

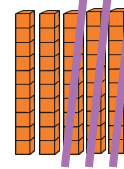
If I know  $6 - 2 = 4$ , then  
I know  $60 + 20 = 40$ .



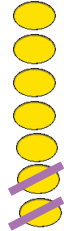
$$5 - 3 = 2$$



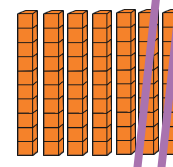
$$50 - 30 = 20$$



$$7 - 2 = 5$$



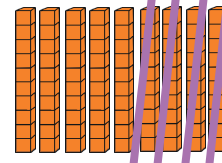
$$70 - 20 = 50$$



$$8 - 4 = 4$$



$$80 - 40 = 40$$



# Counting in Tens



Count in 10s starting from the number 10.

10

20

30

40

50

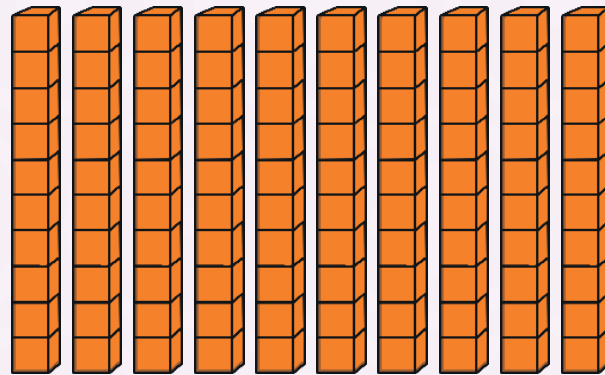
60

70

80

90

100



**Describe what you notice.**

What changes and what stays the same? Why does this happen?

# Counting in Tens



Count in 10s starting from the number 4.

4

14

24

34

44

54

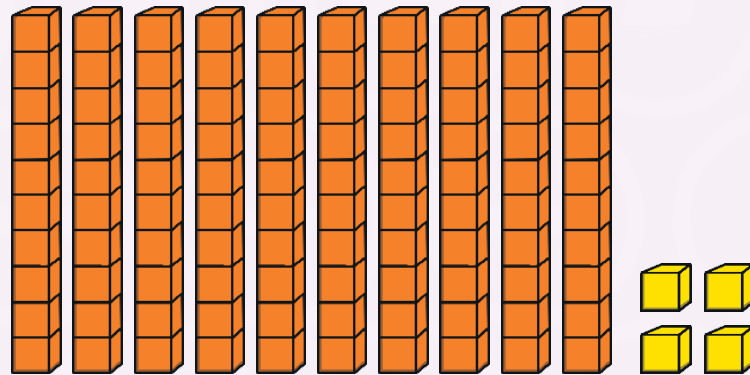
64

74

84

94

104



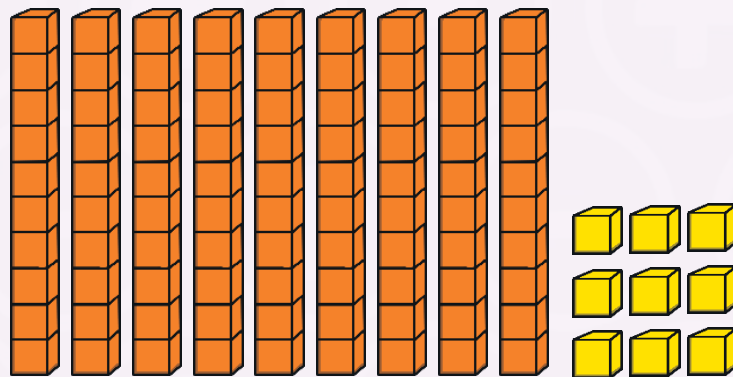
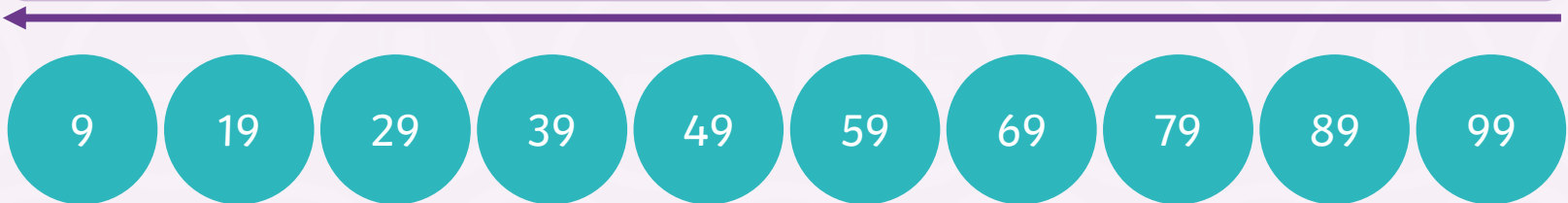
**Describe what you notice.**

What changes and what stays the same? Why does this happen?

# Counting in Tens



Count back in steps of ten. Work your way back from right to left.



**Describe what you notice.**

What changes and what stays the same? Why does this happen?

# Counting in Twenties



What do you think will happen if we count in 20s?  
Will it be similar to counting in 10s?

Can you explain or show the pattern?

# Counting in Twenties



Count forward in steps of 20 starting from the number 0.

0

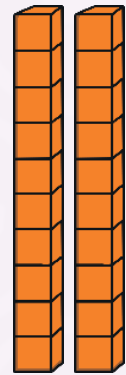
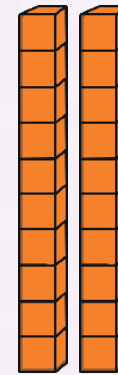
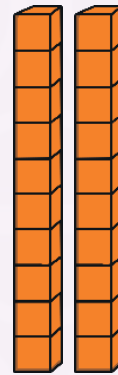
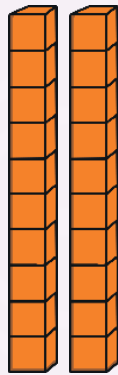
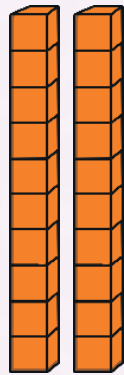
20

40

60

80

100



**Describe what you notice.**

What changes and what stays the same? Why does this happen?

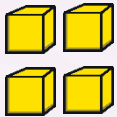


# Counting in Twenties

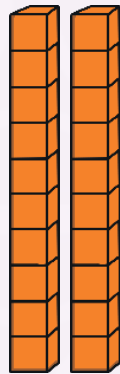


Count forward in steps of 20 starting from the number 4.

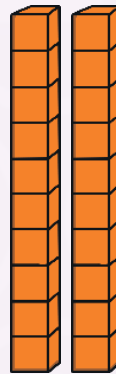
4



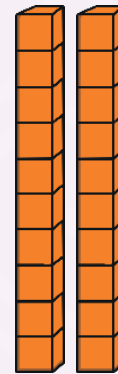
24



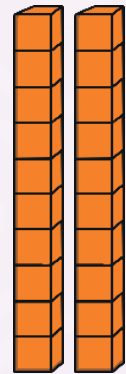
44



64



84



**Describe what you notice.**

What changes and what stays the same? Why does this happen?

# Counting in Twenties



Count back in steps of 20 starting from the number 100.  
Work your way back from right to left.



0

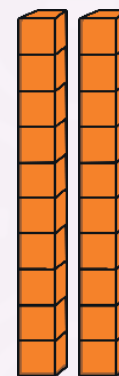
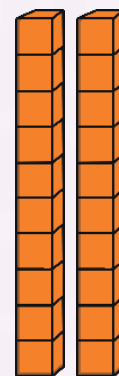
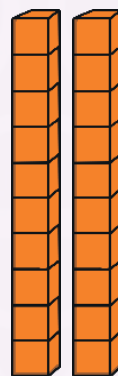
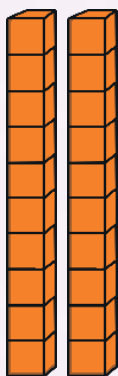
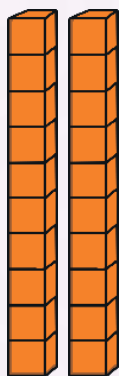
20

40

60

80

100



**Describe what you notice.**

What changes and what stays the same? Why does this happen?

# Multiples Maze



## Multiples of Ten Maze

I can add and subtract a multiple of 10 to and from any 2-digit number.

Each player starts on the centre number. When it is your turn, move your counter one space in any direction. Add or subtract the number on the tile. Keep track of your total by writing number sentences on your whiteboard. You may not go above 100 or below 0. The first person to land exactly on 0 or 100 is the winner.

100	+ 10	- 10	+ 20	- 10	- 20	- 10	0
+ 10	- 20	+ 20	- 20	+ 20	- 20	+ 20	- 10
+ 20	+ 10	+ 10	- 10	+ 10	- 20	+ 20	- 10
+ 20	- 20	- 10	60		+ 10	+ 20	+ 10
- 20	+ 20	+ 10	60		- 10	- 20	+ 20
- 10	- 20	- 10	- 10	- 10	+ 10	+ 20	- 10
- 10	- 10	- 20	- 10	- 20	+ 20	- 20	+ 20
0	- 10	- 10	+ 10	+ 20	+ 10	+ 10	100

## Multiples of Ten Maze

I can add and subtract a multiple of 10 to and from any 2-digit number.

Each player starts on the centre number. When it is your turn, move your counter one space in any direction. Add or subtract the number on the tile. Keep track of your total by writing number sentences on your whiteboard. You may not go above 100 or below 0 and land on a square which has been coloured. If you get stuck, go back to the start. The first person to land exactly on 0 or 100 is the winner.

0	- 10	+ 30	- 30	- 20	- 10	7
0	+ 20	- 20	+ 20	- 20	- 10	- 30
0	+ 10	- 10	+ 10	- 10	+ 10	- 20
0	- 10	57		+ 10	+ 20	- 30
0	+ 10	57		- 10	- 20	+ 40
0	- 20	+ 10	- 10	+ 10	+ 20	+ 10
0	- 20	+ 20	- 20	+ 30	- 20	+ 40
0	- 20	+ 10	+ 30	+ 10	+ 30	97

## Multiples of Ten Maze

I can add and subtract a multiple of 10 to and from any 2-digit number.

Each player starts on the centre number. When it is your turn, move your counter one space in any direction. Add or subtract the number on the tile. Keep track of your total by writing number sentences on your whiteboard. You may not go above 100 or below 0 and land on a square which has been coloured. If you get stuck, go back to the start. The first person to land exactly on 0 or 100 is the winner.

0	+ 30	- 30	- 10	- 40	6	
0	- 30	+ 50	- 20	+ 20	- 40	
0	- 40	+ 20	+ 40	- 10	- 20	
0	- 20	46		+ 30	+ 30	- 30
0	- 50	46		- 10	- 20	+ 40
0	- 10	- 20	+ 30	+ 20	+ 60	
0	+ 50	- 20	- 40	+ 30	+ 20	
0	- 30	+ 20	+ 10	+ 60	96	

## Diving into Mastery

Dive in by completing your own activity!



### Add and Subtract 10s

Continue this sequence adding 10 each time.

22							
----	--	--	--	--	--	--	--

Continue this sequence by subtracting 10 each time.

75							
----	--	--	--	--	--	--	--

Draw the answer on the abacus.

	$+ 20 =$	
	$+ 50 =$	
	$- 30 =$	
	$- 40 =$	

30

the  
are.

ng.  
prove

10

20

30

40

50

60

70

80

90

100

te to  
?

# One Hundred Square



Choose

to subtract.

Can you

find the number?

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

# Aim



- To add and subtract a multiple of 10 to and from any 2-digit number.

# Success Criteria

- I can use number facts to add a multiple of ten to any 2-digit number.
- I can use number facts to subtract a multiple of ten from any 2-digit number.
- I can use patterns to add a multiple of ten to any 2-digit number.
- I can use patterns to subtract a multiple of ten from any 2-digit number.

