Mathematics Mastery

Two-digit place value and partitioning

Intervention activities

Watch the supporting video here

Mathematics Mastery

General guidance

Encourage pupils to **explain** what they see in the video and to **mirror** the use of language and representations to draw out meaning.

Wait until pupils are **confident** with the language and representations in the video **before moving on** to new activities

Take time to deepen understanding. It is recommended to focus on **no more than three or four activities** per session.

Address **misconceptions before moving on** to new activities

Repeat the same **questions**, **sentence structures** and **representations** across activities to build fluency.

Review the video and activities in subsequent sessions to **consolidate understanding.**

Use this guidance below when working through the video and each activity within this bank

Say these sentence structures:

"52 is the whole. I can partition it into 2 parts. One part is worth 50 and the other part is 2."

"50 add 2 is equal to 52" ---"2 add 50 is equal to 52" --- "52 is equal to 50 add 2" --- "52 is equal to 2 add 50."

Ask this:

What is the value of the whole? How do you know? *The value of the whole is 52. It is worth five tens and two ones*

What is each part worth? How do you know? *One part is worth 50. It is worth five tens. The other part is two. It has a value of two ones.*

How can you partition the whole? *I can partition it into 2 parts. One part is worth [50] and the other part is [2]".* **Can you partition in a different way? And another way?**

Look out for:

1. Pupils who do not recognise ten cubes as a single 'group of ten'. ***Stop the video/activity*** *and practise grouping objects into tens first*

2. Pupils who say '50 tens' instead 5 tens. ***Stop the video/activity*** *and practise counting in many ways to emphasise the difference: 1 ten, 2 tens, 3 tens vs 10, 20, 30.*

3. Pupils who only partition according to place value (e.g. 50 + 2). ***Stop the video/activity*** *and wait until pupils demonstrate they can do this confidently before moving onto partitioning in different ways (e.g. 40 + 12, 51 + 1)*

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What did you observe when working through the video with pupil(s)?

Identify what activities pupils should start with by considering these questions

Did pupil(s) only partition according to place value? Start at section 1. Use these activities to **first** focus on standard partitioning **only** (52 = 50 + 2).

→ As confidence builds, **introduce** non-standard partitioning (see below)

Are pupil(s) beginning to partition in different ways? Start at section 1. Use these activities to focus **both** on standard **and** non-standard partitioning (52 = 51 + 1 or 52 = 40 +12)

→ As confidence builds, add further challenge (see below)

Can pupil(s) partition in different ways with confidence? Start at section 2. Use these activities to deepen understanding and for further challenge

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Section 1

Are pupils struggling to find the correct answers?

First – use the 'ask this' question prompts
Next – practise saying the sentence structures with the pupil. Use the concrete resources to support this.

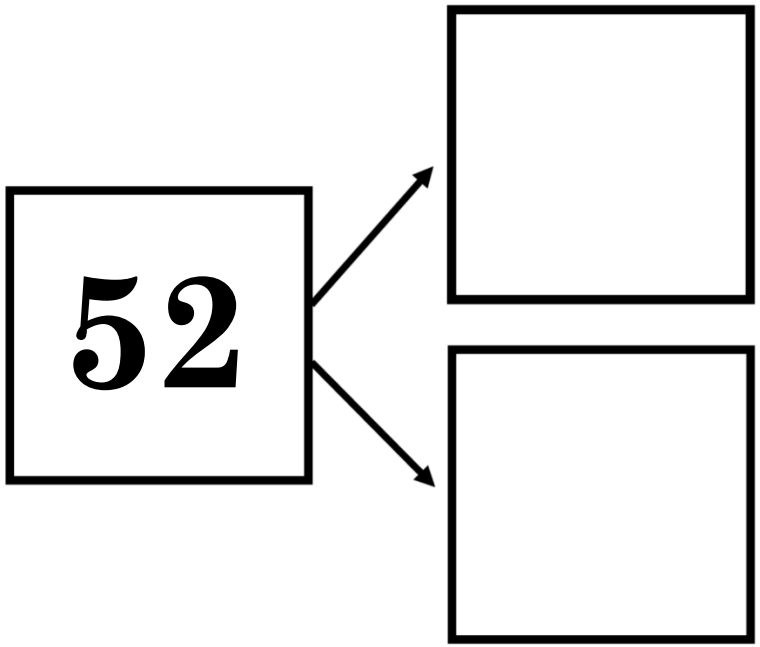
Are pupils still struggling to find the correct answers?

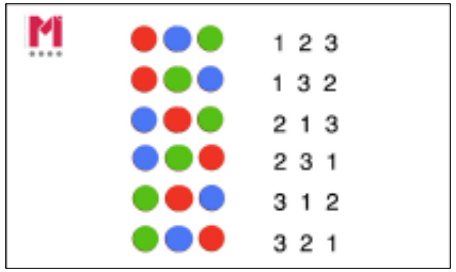
Then – STOP!

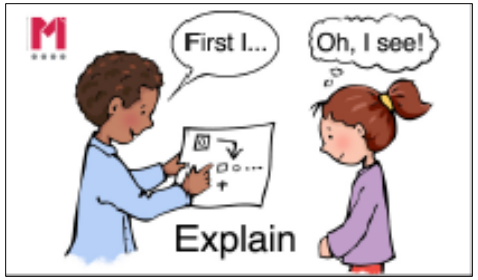
Review the video to remodel the key learning.

Pause the video to provide opportunities for further practise by repeating with similar examples to those shown video in the video.

How many ways can you partition 52?







Remember to include your equations

Part Whole Tens Ones Partition

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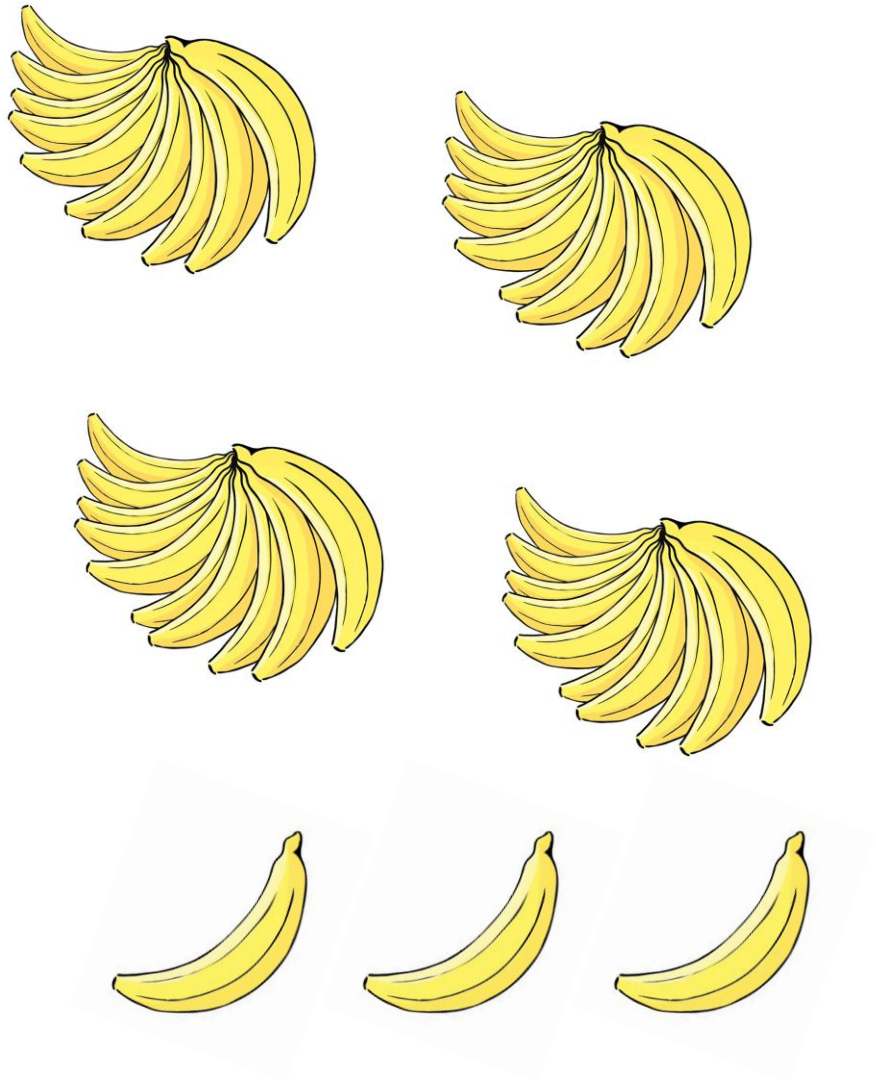
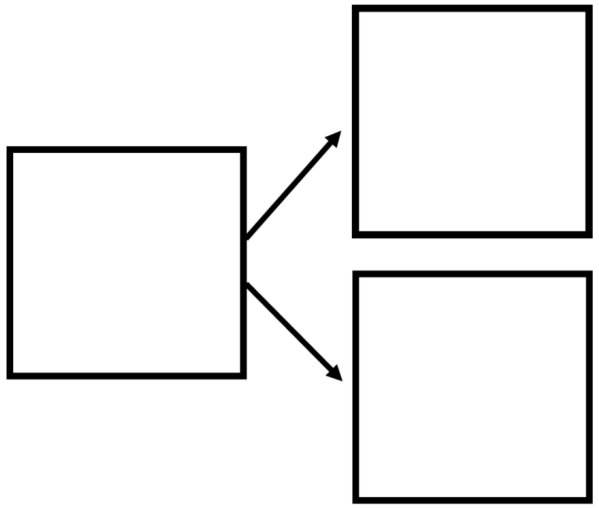
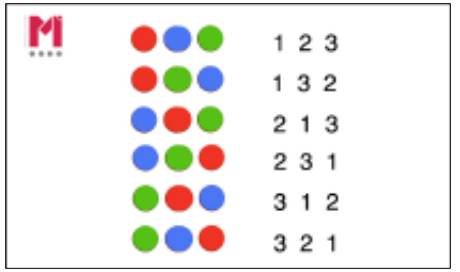


How are these bananas grouped?

How many bananas are there altogether?

How else could you group these bananas?





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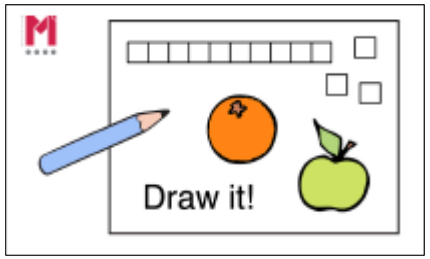
Partition 65.



Draw what you have done.

Then, partition 65 in a different way. Draw what you have done.

Now partition 65 in a different way.

And another way.

Draw what you have done each time

Part Whole Tens Ones Partition

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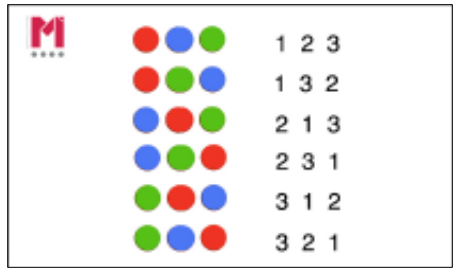
How many different ways can you partition...



42 p

Part Whole Tens Ones Partition

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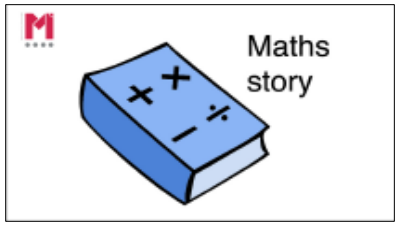
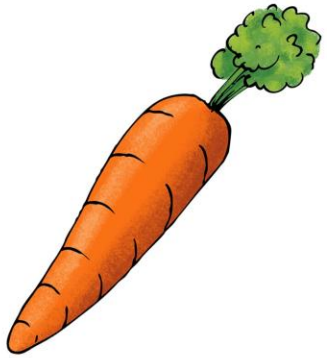


Ali the farmer grew 57 carrots. He sold 7 of them. How many carrots does Ali have left?



Now: Can you write your own Maths Story?

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Section 2

Are pupils struggling to find the correct answers?

First – use the 'ask this' question prompts
Next – practise saying the sentence structures with the pupil. Use the concrete resources to support this.

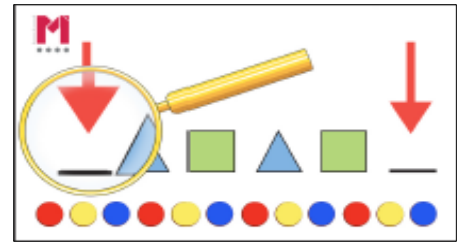
Are pupils still struggling to find the correct answers?

Then – STOP!

Review the video to remodel the key learning.

Pause the video to provide opportunities for further practise by repeating with similar examples to those shown video in the video.

What comes next?



What equation comes next in the pattern?

How do you know?

$$33 + 2 = 35$$
$$32 + 3 = 35$$
$$31 + 4 = 35$$
$$30 + 5 = 35$$

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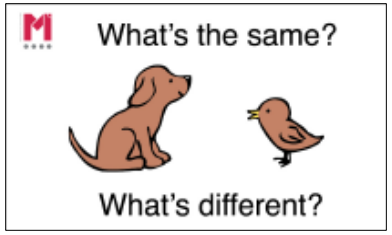
What's the same and what's different?



$24 = 20 + 4$

$10 + 14 = 24$

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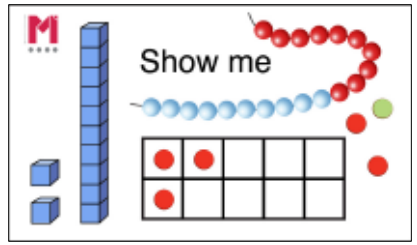
Show each equation with cubes on a part-whole model



$61 = 60 + 1$

$61 = 50 + 11$

$61 = 40 + 21$

$61 = 30 + 31$

What pattern do you notice? What might come next?

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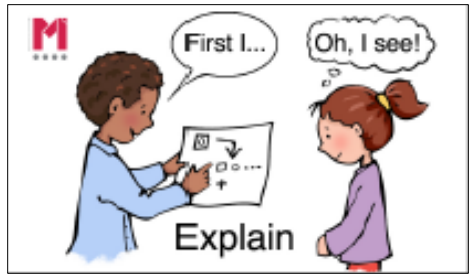
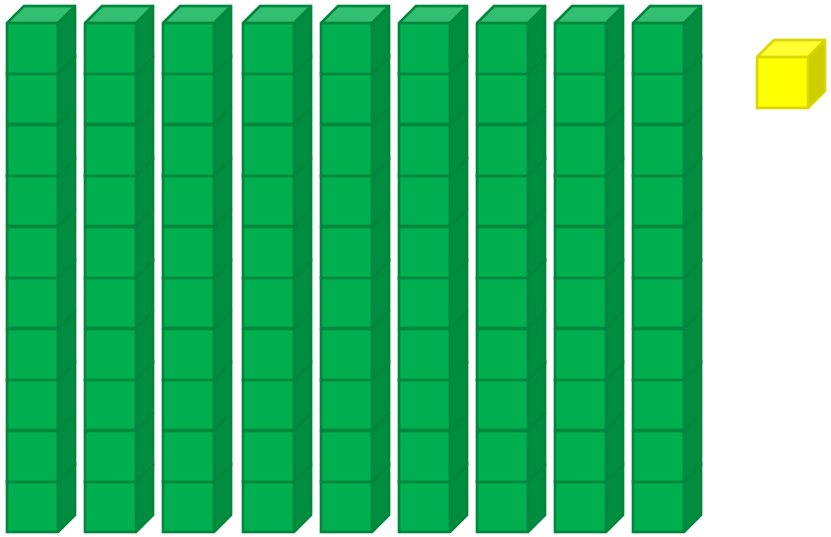
Who's correct? Explain how you know



91 = 90 + 1



91 = 9 + 10

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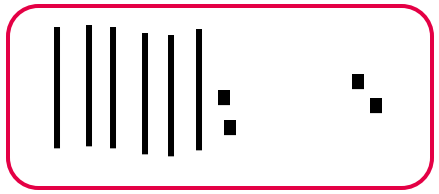
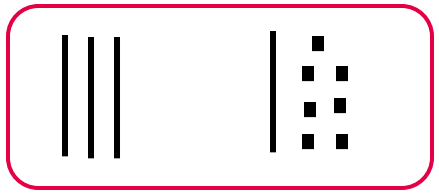
Match the representations





30 + 17

62 + 2

10 + 15

64

47

25

Part Whole Tens Ones Partition

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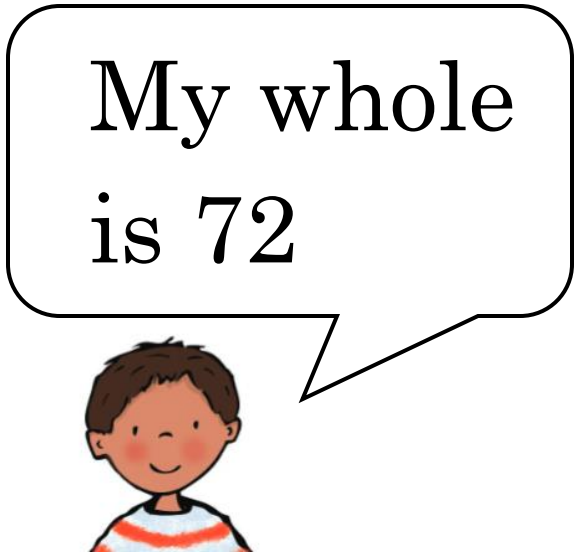
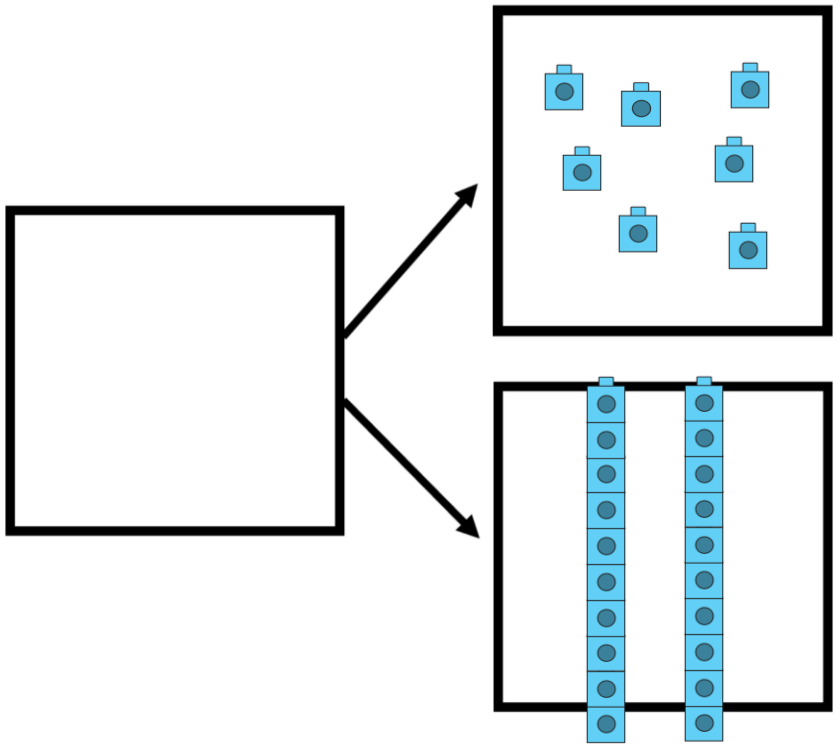
Jay partitioned a number

Spot the mistake





Part Whole Tens Ones Partition

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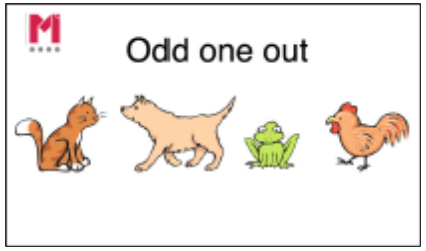
Which is the odd one out – why?



$66 = 60 + 3$	$30 + 6 = 36$
$63 = 62 + 1$	$44 = 30 + 14$

Part Whole Tens Ones Partition

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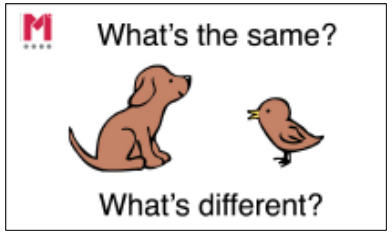
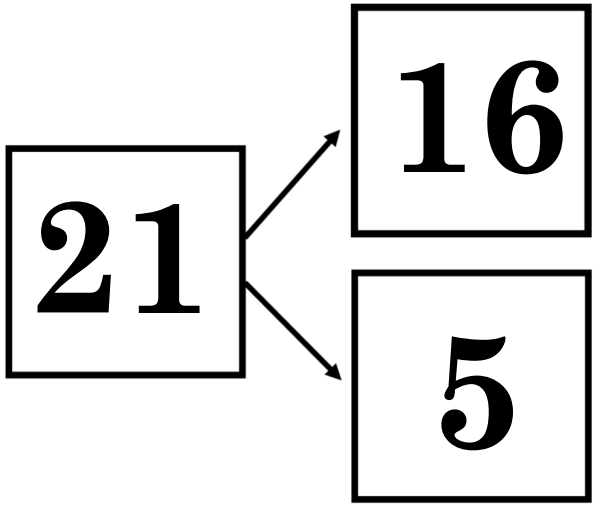
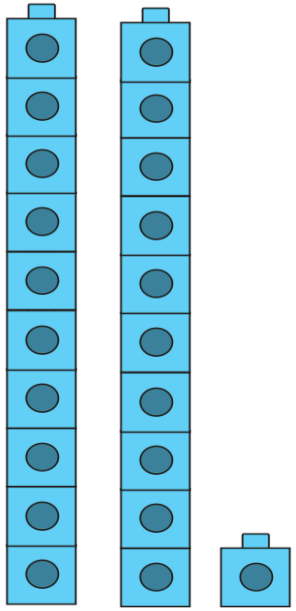
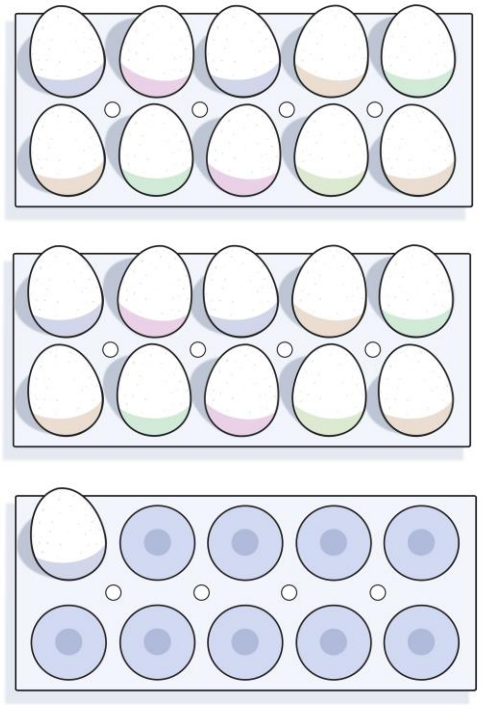
What's the same and what's different?







21 = 11 + 10



Twenty one

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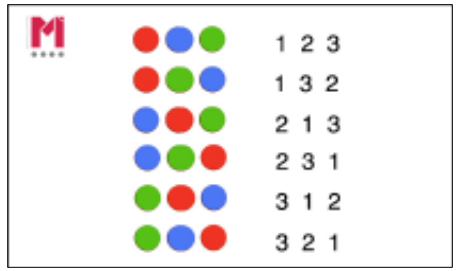
Fill in the blanks to show each number in different ways. How many more can you think of?



42

40 + ☐

☐ +12

20 + ☐

☐ +31

84

☐ + 4

60 + ☐

☐ + 44

21 + ☐

68

☐ + 6

50 + ☐

☐ +28

+12

Part Whole Tens Ones Partition

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