Maths

Number and Place Value

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

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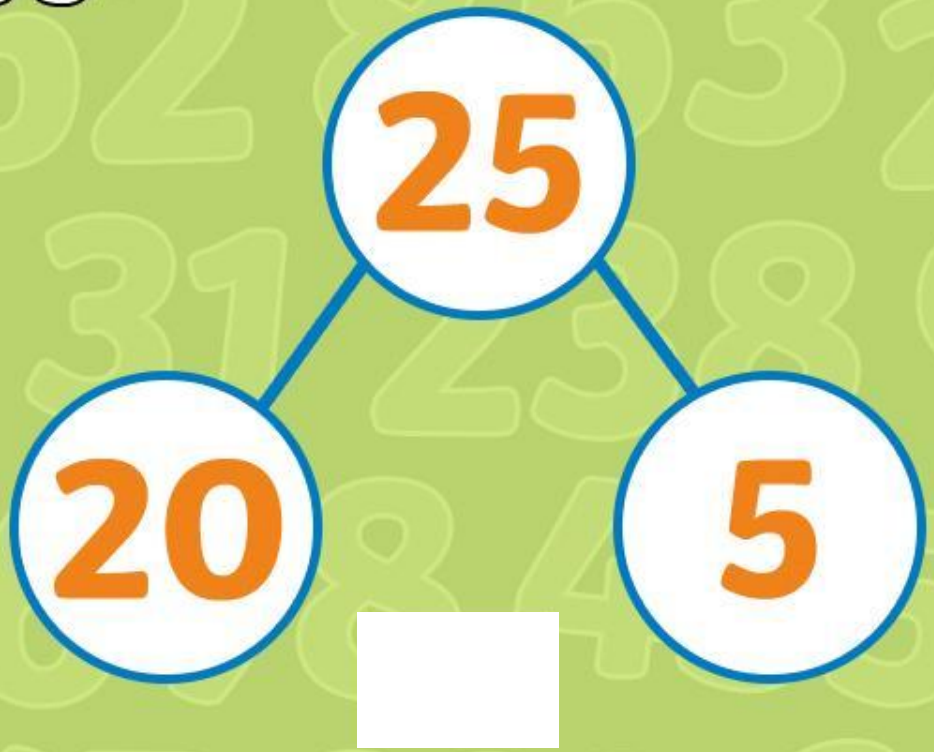
Partitioning in Different Ways



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Aim

- To partition two-digit numbers in different ways.

Success Criteria

- I can say what the value of each digit is in a two-digit number.
- I can partition a two-digit number into tens and ones.
- I can partition two-digit numbers in more than one way.

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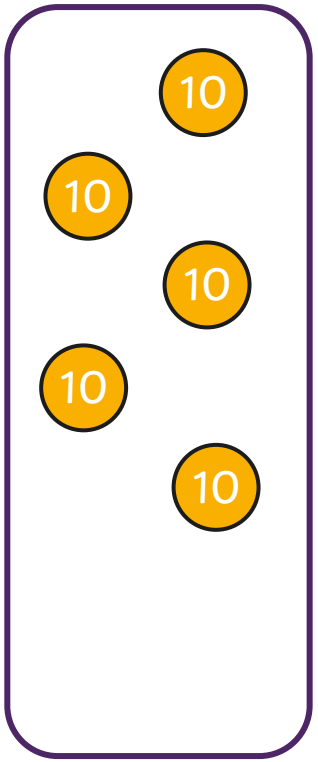
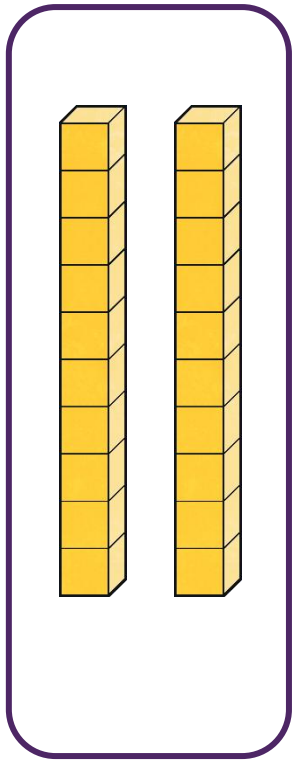
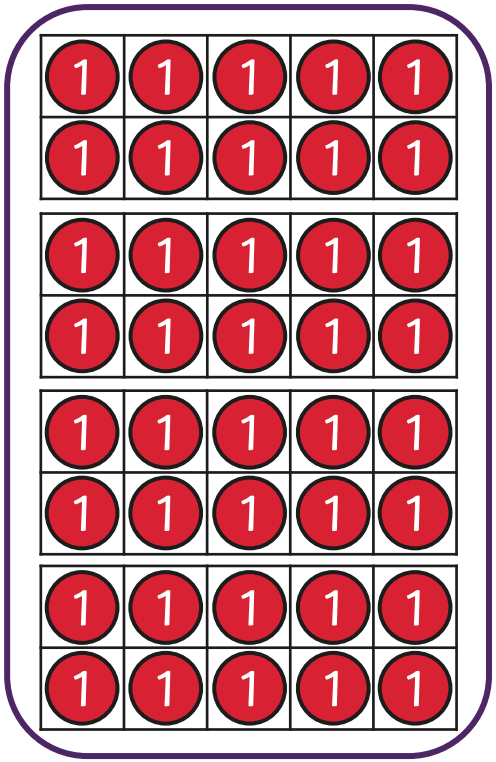
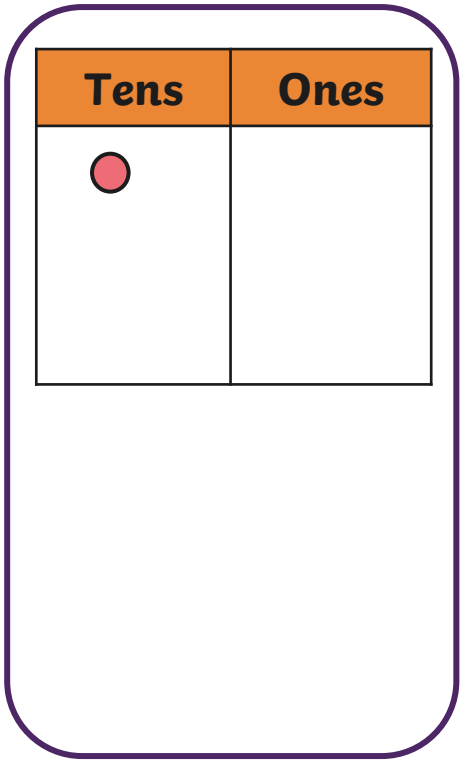
Remember It

Match the pairs and explain your answers.









2 tens

4 tens

1 ten

5 tens

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Remember It

Match the pairs and explain your answers.

70	30	80	60
8 tens	6 tens	3 tens	7 tens

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Let's Find Another Way

Whole Class

What do we know about this number?

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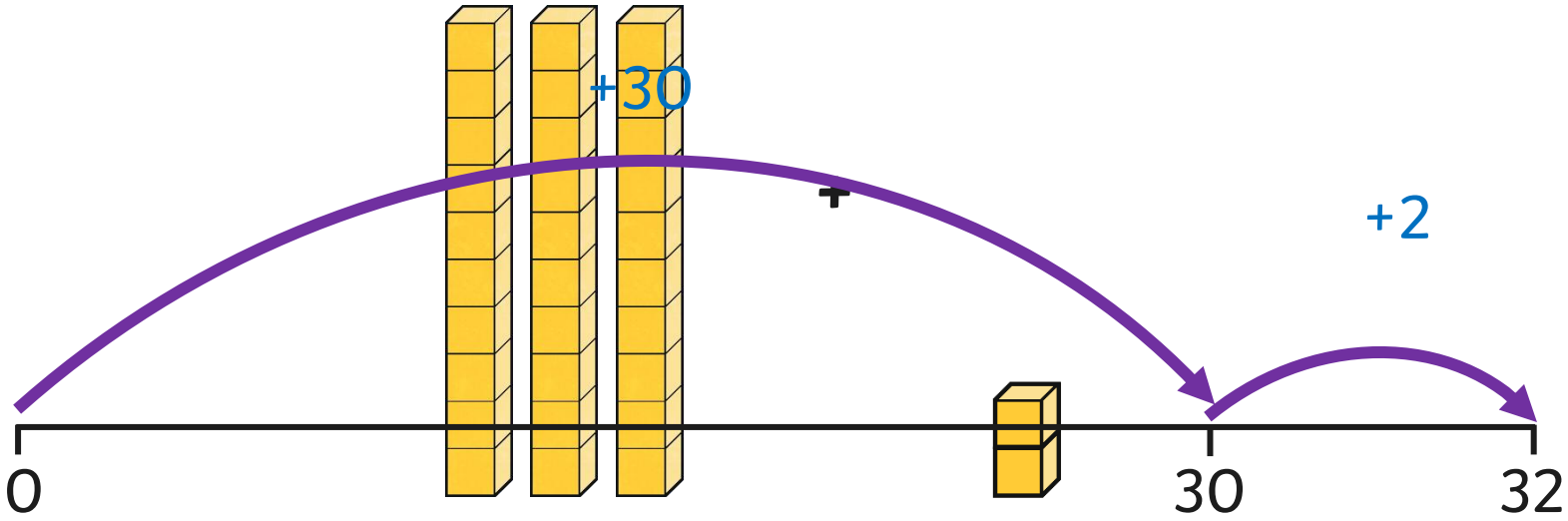
Let's Find Another Way

We can partition this number into a multiple of ten and ones.

$$32 = 30 + 2$$



Is there another way?

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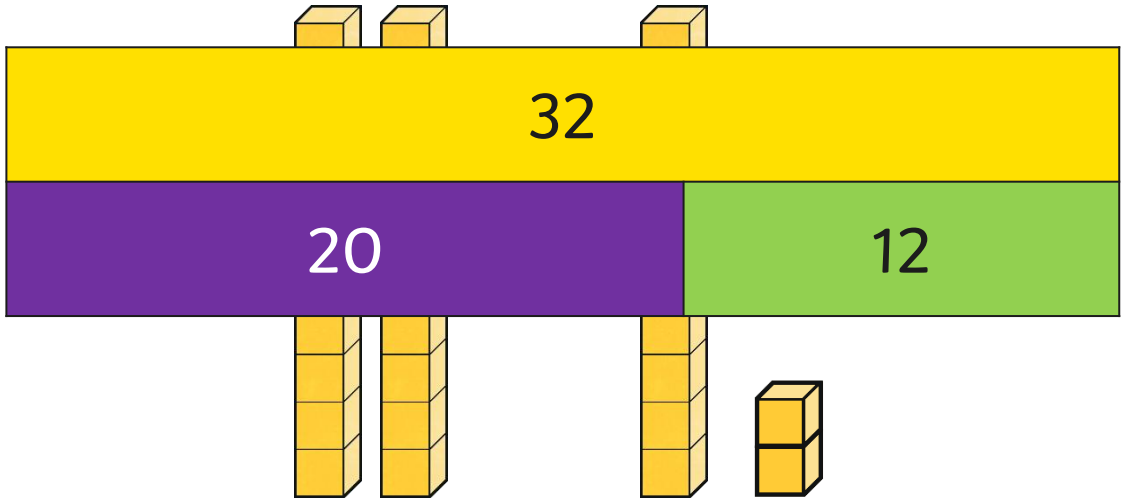
Let's Find Another Way

Whole Class

Another way we can make 32 is...

$$32 = 20 + 12$$



Is there another way?

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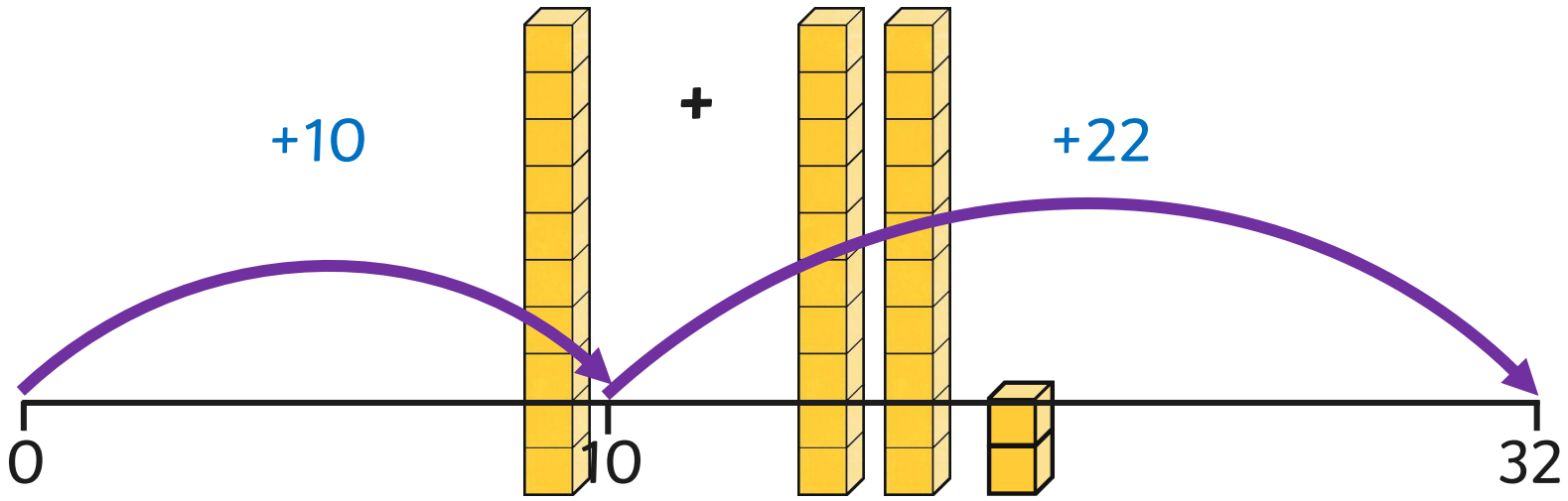
Let's Find Another Way

Whole Class

We can partition this number into a multiple of ten and a two-digit number.

$$32 = 10 + 22$$



Is there another way?

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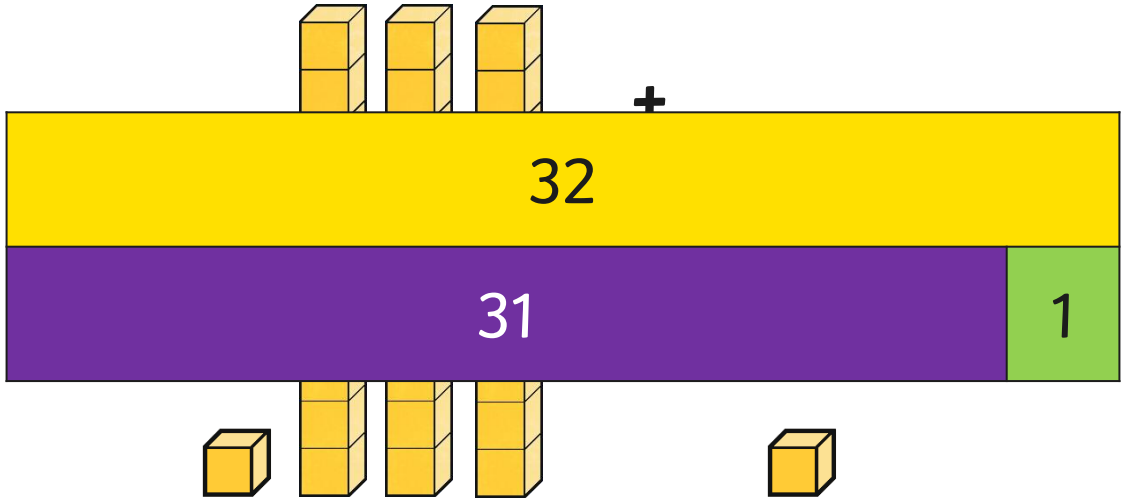
Let's Find Another Way

We can partition this number into a two-digit number and ones.

$$32 = 31 + 1$$



Is there another way?

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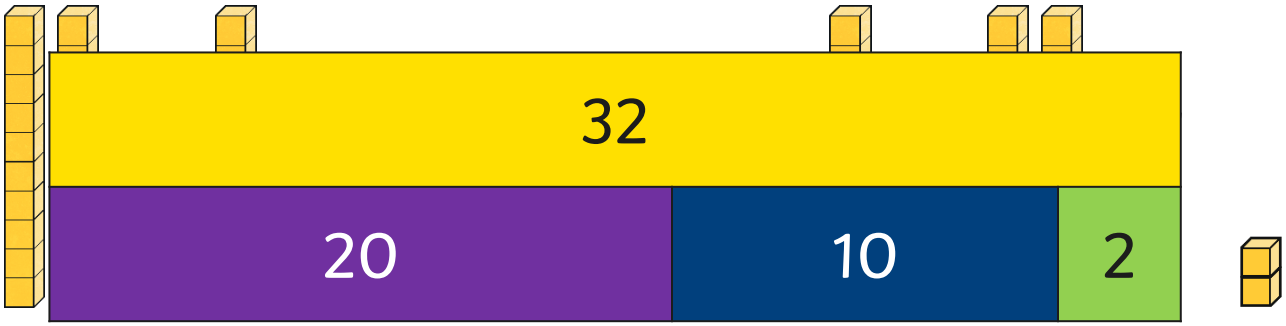
Let's Find Another Way

You can even partition 32 into three numbers.

$32 = 20 + 10 + 2$ $32 = 10 + 20 + 2$



You can see there are the same numbers in each partitioning, just in a different order.

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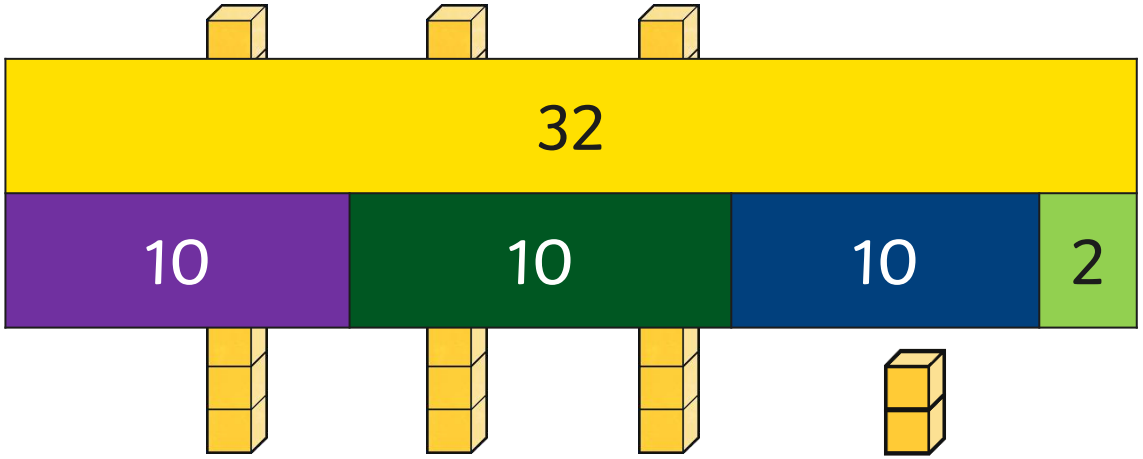
Let's Find Another Way

You can even partition 32 into four numbers!

$$32 = 10 + 10 + 10 + 2$$



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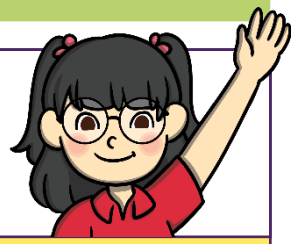
Let's Find Another Way

Whole Class

How many ways can you find to partition 45 into two numbers?



45 = _____ + _____

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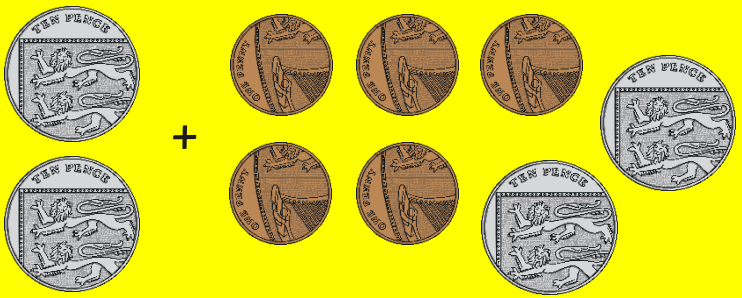
Let's Find Another Way

Whole Class

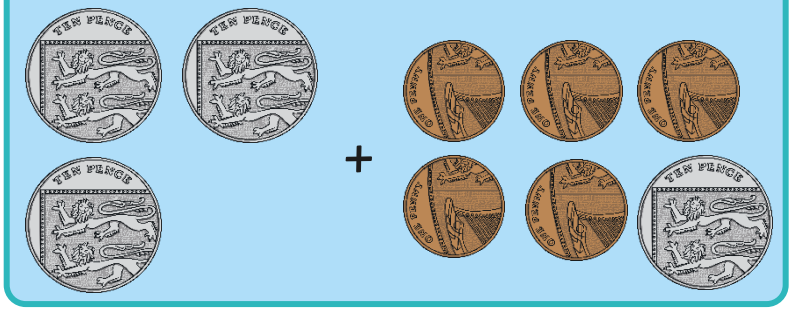
How did you partition 45 into two numbers?

45 = 40 + 5

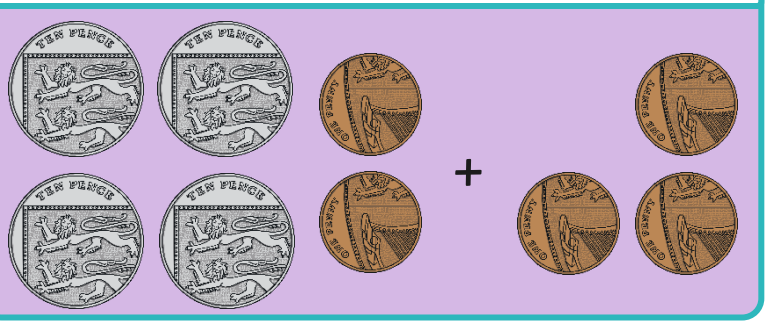
45 = 20 + 25



45 = 30 + 15



45 = 42 + 3



Did you have any different answers?

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Let's Find Another Way

Whole Class

Can you find a way to partition 45 into three numbers?

45 = ____ + ____ + ____

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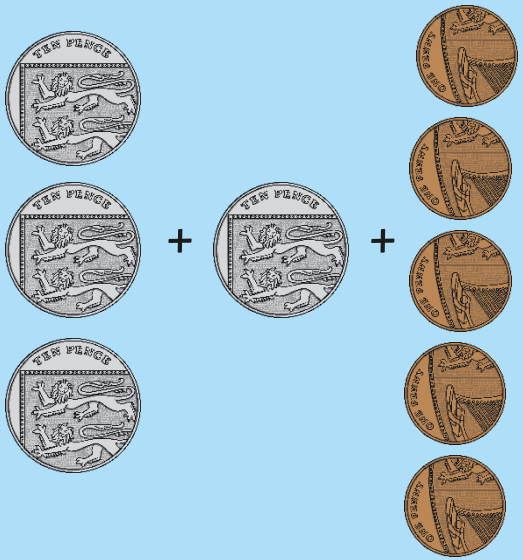
Let's Find Another Way

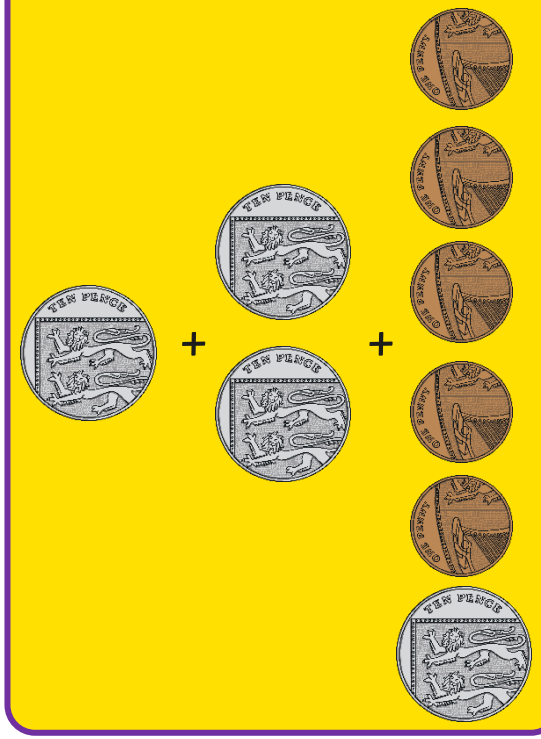
Whole Class

Here are some of the ways...

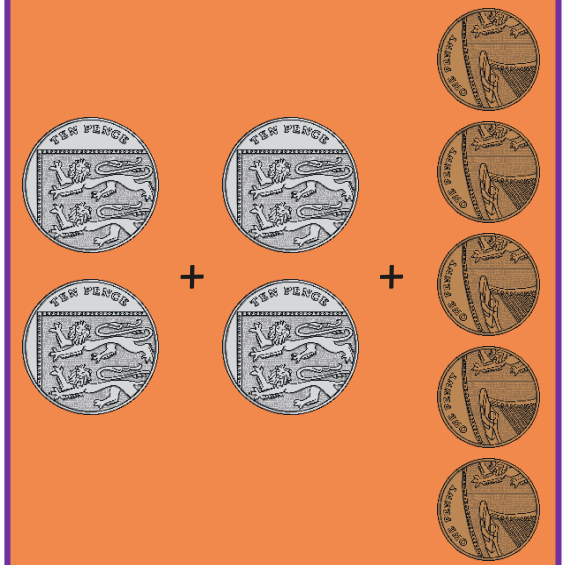
45 = 30 + 10 + 5



45 = 10 + 20 + 15



45 = 20 + 20 + 5



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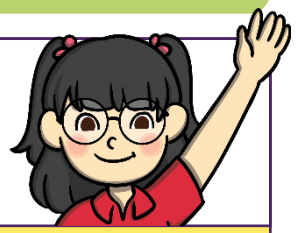
Let's Find Another Way

Whole Class

You can even split 45 into four numbers.

This is one way...

$$45 = 10 + 10 + 10 + 15$$



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Let's Find Another Way

Whole Class

You can even split 45 into five numbers!

$$45 = 10 + 10 + 10 + 10 + 5$$

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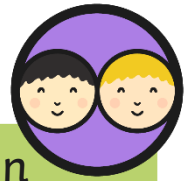
Find the Ways



Choose a two-digit number. How many ways can you partition it using equipment? Record your ways as calculations.

62

62 = 60 + 2

62 = 50 + 12

62 = 40 + 22

62 = 30 + 32

62 = 20 + 42

62 = 10 + 52

62 = 31 + 31

62 = 50 + 10 + 2

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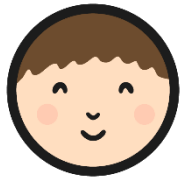
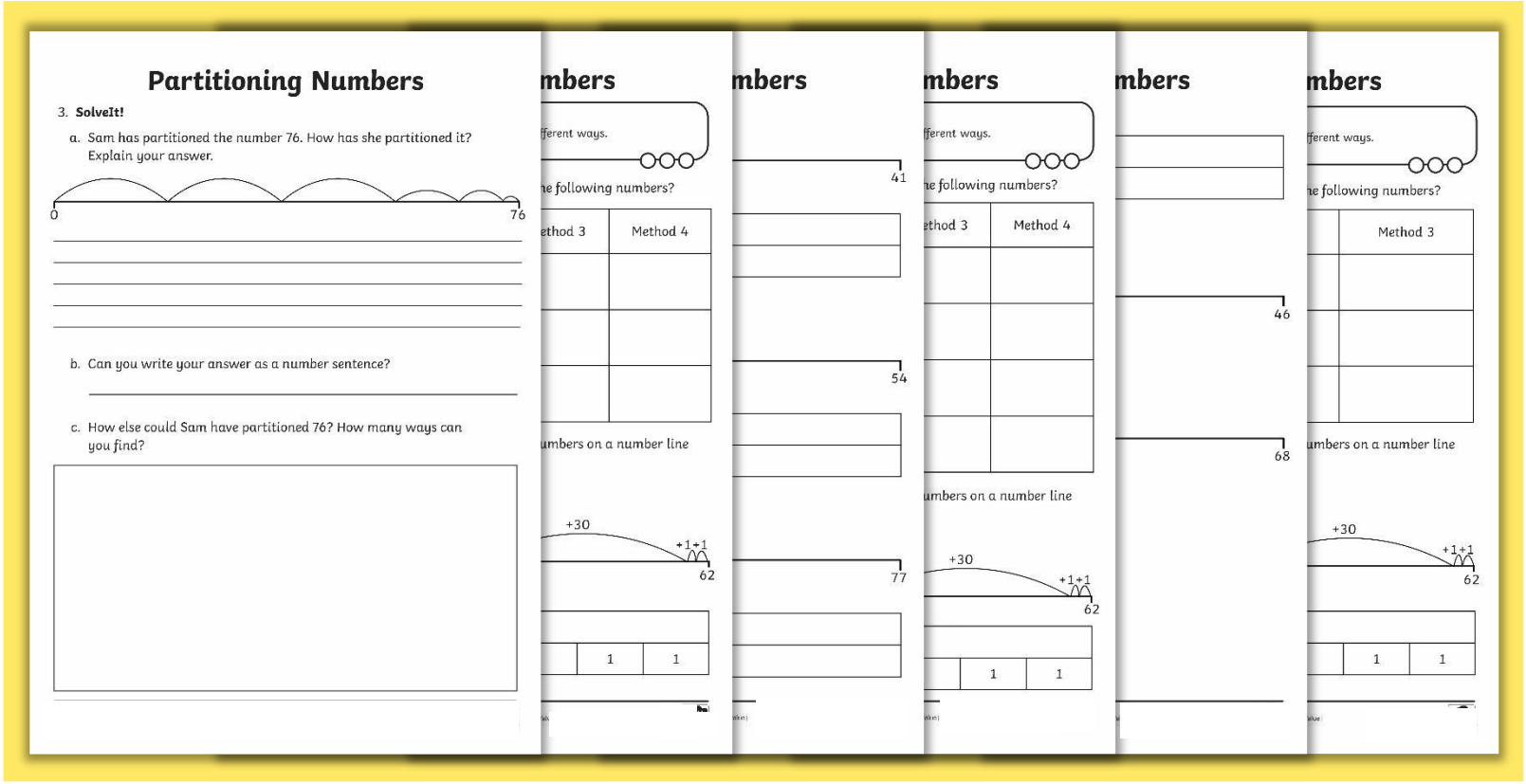
Partitioning in Different Ways



Can you partition numbers in different ways?



Partitioning Numbers

3. **SolveIt!**

a. Sam has partitioned the number 76. How has she partitioned it? Explain your answer.

0 76

b. Can you write your answer as a number sentence?

c. How else could Sam have partitioned 76? How many ways can you find?

mbers

ferent ways.

e following numbers?

ethod 3	Method 4

umbers on a number line

+30 +1+1 62

1 1

41 54 77

mbers

ferent ways.

e following numbers?

ethod 3	Method 4

umbers on a number line

+30 +1+1 62

1 1

46 68

mbers

ferent ways.

e following numbers?

Method 3	

umbers on a number line

+30 +1+1 62

1 1

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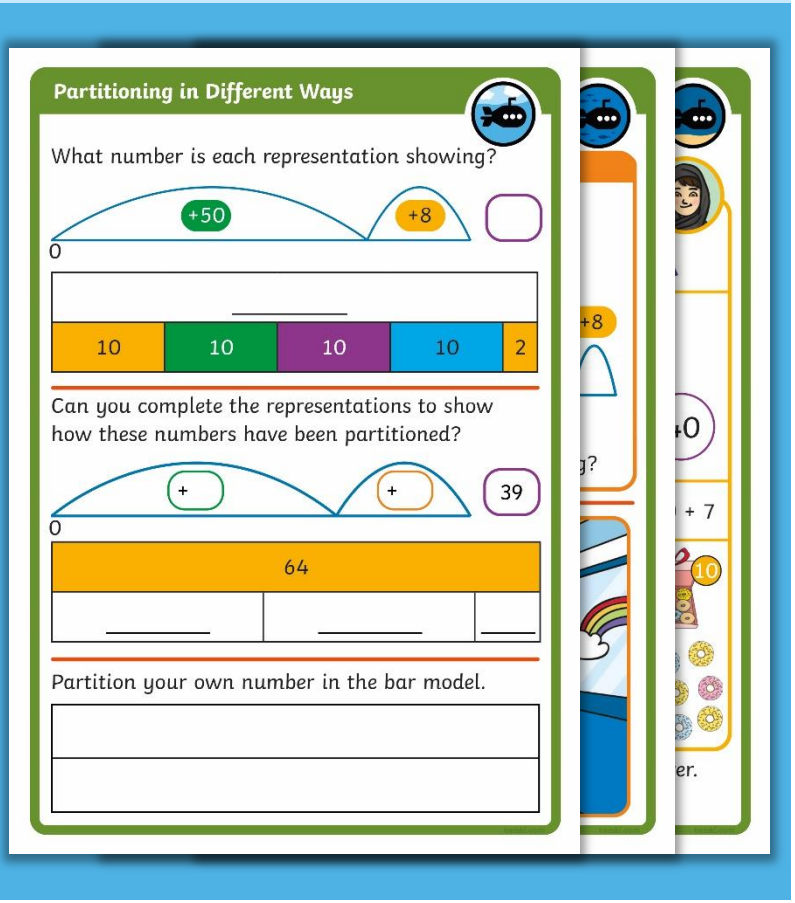
Diving into Mastery

Dive in by completing your own activity!



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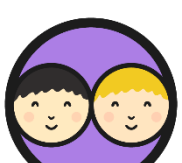
Guess My Number



Can you guess what number your partner is thinking of?

Is it larger than...?

Is it smaller than...?

Is it an even number?

Is it an odd number?

Will you be the quickest to guess?

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Aim

- To partition two-digit numbers in different ways.

Success Criteria

- I can say what the value of each digit is in a two-digit number.
- I can partition a two-digit number into tens and ones.
- I can partition two-digit numbers in more than one way.

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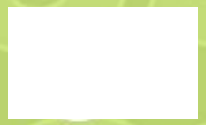

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