

Can I partition one- and two-digit numbers in different ways?

Teaching guidance

Key vocabulary

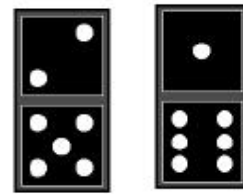
number, tens, units, ones, digit, value, partition, split, recombine, place value, one-digit number, two-digit number

Models and images, resources and equipment

Use practical equipment to partition a one-digit number in different ways



8 is 5 and 3 more
 $8 = 5 + 3$



$2 + 5 = 7$ $1 + 6 = 7$

Use practical equipment to partition tens and ones in different ways

41p could be made from 10p + 10p + 10p + 10p + 1p

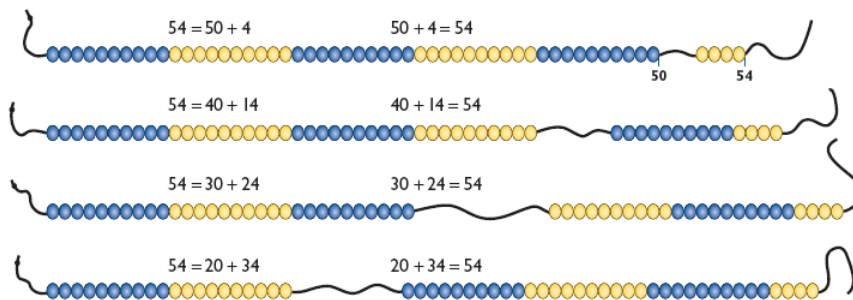


or 20p + 20p + 1p



or lots of other ways with 20p, 10p and 1p coins.

Partition tens and ones in different ways using bead strings



Teaching tips

- Provide children with practical experience of partitioning a small number of objects into two groups, for example by:
 - creating all the possible dominoes with 7 spots;
 - putting out 8 biscuits onto 2 plates;
 - making two jumps to land on 9 on a number line.
- Model the different ways in which a partitioned number can be recorded, for example:
 $8 = 5 + 3$ $8 = 3 + 5$ $5 + 3 = 8$ $3 + 5 = 8$
- Use equipment that helps children to 'see' that numbers can be partitioned in many different ways, for example:

- Use a 100-bead string to partition number 46 into tens and ones in different ways. Model how these can be recorded as number sentences, for example:
 $46 = 40 + 6$
 $46 = 30 + 16$
 $46 = 20 + 26$
 $46 = 10 + 36$;

- Use bundles of 10 straws and single straws to help children see a number such as 35 as:

	30			+ 5
	20			+ 15

and so on.

- Explore with children how to use partitioning of a one-digit number and knowledge of number facts to 10 to add and subtract numbers that cross the tens boundary. Ask questions such as:
 - What is $37 + 8$? What number facts might you use to help you work this out? How many do you need to add to 37 to get to the next multiple of 10? How might you partition 8 to help you? How could you show that on a bead string or number line?
- Understanding of partitioning numbers in different ways (e.g. partitioning 74 into $70 + 4$ or $60 + 14$) supports children's understanding of future calculation methods, for example decomposition

$70 + 4$	$\overset{60}{\cancel{70}} + \overset{14}{\cancel{4}}$	$\overset{6}{\cancel{7}} \overset{14}{\cancel{4}}$
$- 20 + 7$	$- 20 + 7$	$- 27$
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	$40 + 7$	47

and informal methods of division using partitioning.

	84		
70	+	14	
↓		↓	÷ 7
10	+	2	= 12