Unit 7

Strengthen activities

MISCONCEPTION: When counting on, children may include the starting number and/or be unsure when to stop the count.

Answers

Practice Book p8

The track shows 8 + 5. This is because the starting number is not counted when a number is added to it. There are 5 jumps from 8.

MISCONCEPTION: Some children may partition randomly rather than understanding the need to find the bond to 10.

Answers

Practice Book p17

Children should explain how to partition one of the following:

a) 4 could be partitioned into 1 and 3. Work out 9 + 1, then 10 + 3.
b) 4 could be partitioned into 3 and 1. Work out 7 + 3, then 10 + 1.
c) 8 could be partitioned into 6 and 2. Work out 4 + 6, then 10 + 2.
d) 6 could be partitioned into 1 and 5. Work out 9 + 1, then 10 + 5.

Note that the above examples show the second number being partitioned. Some children may choose to partition the first number in each addition instead.

MISCONCEPTION: Children may choose inefficient or inappropriate addition methods.

Answers

Children should suggest appropriate addition strategies. These may vary, but be aware of inefficient strategies (for example, counting on from 4 to find the answer to 4 + 16).

Deepen activities

Answers

Activity 1

a) All answers should show the addition 15 + 5 = 20 in different ways. These may include:
- Part-part-whole diagram with the whole 20 and the parts 15 and 5.
- Addition recorded as 15 + 5 = 20.
- A bead string showing 15 and 5.
- Counters in ten frames showing 15 of one colour and 5 of another.
- 15 + 5 shown on a number line.

Children are asked to consider what is the same about their different methods (they all show the same addition, they all begin with 15 and then add 5, they all give the same total), what is different (they show the addition in different ways – some using objects, some using numbers, some using pictures) and which is the most efficient (various answers are possible here as long as children use reasoning, but overall it is more efficient to work out a calculation using numbers rather than drawing or colouring).

b) All number stories should reflect an addition and should have a total greater than 10.

Activity 2

9 + 1 = 10, 9 + 2 = 11, 9 + 3 = 12, 9 + 4 = 13, 9 + 5 = 14, 9 + 6 = 15

Children are asked to try starting from another number. Their new possibilities will include all totals starting from their new number and adding the numbers 1 to 6.

Activity 3

5 + 6 = 11, 5 + 7 = 12, 5 + 8 = 13, 5 + 9 = 14

6 + 6 = 12, 6 + 7 = 13, 6 + 8 = 14, 6 + 9 = 15

7 + 6 = 13, 7 + 7 = 14, 7 + 8 = 15, 7 + 9 = 16

8 + 6 = 14, 8 + 7 = 15, 8 + 8 = 16, 8 + 9 = 17

9 + 6 = 15, 9 + 7 = 16, 9 + 8 = 17, 9 + 9 = 18

The method used should reflect adding to 10 first. For example, 7 + 9 found by splitting 9 into 3 and 6, first adding 7 + 3 to make the total up to 10 and then adding the remaining 6 to get 16.

Children are asked to consider different ways of making the same total (for example, 7 + 6 is the same as 5 + 8).

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