

Addition and Subtraction Unit 1

Problem solving and reasoning: Questions

Year 2

Write the pairs of possible missing numbers:

20		
11	*	?

How many different ways are there of writing numbers in the two boxes in this sentence?

$$\square + \square = 10$$

What if the two boxes = 9? Or = 8?

You have 21 cards: 0 to 20.

Put them together in pairs of numbers making 20. Write these.

Write the pair you cannot create.

These questions should be provided for children to do once the unit has been completed. They assess the children's mastery of the skills and concepts in this unit.

Year 3

You have 21 cards: 0 to 20.

Put them together in pairs of numbers making 20. Write these.

Write the pair you cannot create

Write four number sentences to relate these 3 numbers: 13, 19 and 6.

$85 + 15$ is an addition of a pair of multiples of 5 that total 100. Write 5 more similar additions.

Write all possible different ways of making 14 by adding two numbers.

Explain your system for finding them all.

These questions should be provided for children to do once the unit has been completed. They assess the children's mastery of the skills and concepts in this unit.

Addition and Subtraction Unit 1

Problem solving and reasoning: **Answers**

Year 2

Write the pairs of possible missing numbers:

20		
11	*	?

5 + 4 (or 4 + 5); 6 + 3 (or 3 + 6); 7 + 2 (or 2 + 7); 8 + 1 (or 1 + 8);
9 + 0 (or 0 + 9). Errors may arise when children fail to recognise
9 as the difference between 20 and 11.

For this, and the following questions, consider how systematically children have listed the possibilities and challenge them to do so if they have missed some of the answers.

How many different ways are there of writing numbers in the two boxes in this sentence?

$$\square + \square = 10$$

11 possibilities 10 + 0, 9 + 1, 8 + 2 1 + 9, 0 + 10.

What about if the 2 boxes = 9? Or = 8?

10 possibilities if the total is 9; 9 possibilities if the total is 8

You have 21 cards: 0 to 20.

Put them together in pairs of numbers making 20. Write these.

Write the pair you cannot create.

10 pairs:

20 + 0, 19 + 1, 18 + 2, 17 + 3, 16 + 4, 15 + 5, 14 + 6, 13 + 7,
12 + 8, 11 + 9.

The missing pair is 10 + 10 (since there is only one 10 card).

These questions should be provided for children to do once the unit has been completed. They assess the children's mastery of the skills and concepts in this unit.

Year 3

You have 21 cards: 0 to 20.

Put them together in pairs of numbers making 20. Write these.

Write the pair you cannot create

10 pairs:

$20 + 0$, $19 + 1$, $18 + 2$, $17 + 3$, $16 + 4$, $15 + 5$, $14 + 6$, $13 + 7$,
 $12 + 8$, $11 + 9$.

The missing pair is $10 + 10$ (since there is only one 10 card).

Write four number sentences to relate these 3 numbers: 13, 19 and 6.

$13 + 6 = 19$, $6 + 13 = 19$, $19 - 13 = 6$, $19 - 6 = 13$.

$85 + 15$ is an addition of a pair of multiples of 5 that total 100.

Write 5 more similar additions.

Any of: $95 + 5$, $75 + 25$, $65 + 35$, $55 + 45$, $45 + 55$, $35 + 65$,
 $25 + 75$, $15 + 85$, $5 + 95$.

Write all possible different ways of making 14 by adding two numbers.

Explain your system for finding them all.

$14 + 0$, $13 + 1$, $12 + 2$ $2 + 12$, $1 + 13$, $0 + 14$.

Consider how systematically children have listed all the possibilities.

These questions should be provided for children to do once the unit has been completed. They assess the children's mastery of the skills and concepts in this unit.