

More Addition and Subtraction Unit 3

Problem solving and reasoning questions

Year 3

Add four hundred and fifty-six to three hundred and seventy-two.

What is the total of two hundred and sixty-eight and two hundred and eighty-six?

Write the missing numbers

$$643 + 174 = \square$$

$$327 + 258 = \square$$

$$416 + \square = 888$$

Amit uses 346 Lego pieces in building his model X-wing, and his sister uses 287 in building her Millennium Falcon. How many Lego pieces have they used altogether?

Fill the gaps in this subtraction:

$$81\square - 4\square7 = \square46.$$

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 4

Complete each diagram:

604	
287	

912	
	868

1003	
578	

Here is Ali's homework.

- a. $403 - 265$
- b. $648 - 356$
- c. $752 - 199$
- d. $812 - 754$

Advise him on the most efficient or error-proof subtraction strategy to calculate each one, explaining why you are suggesting that method.

Calculate the answers.

Complete this subtraction calculation that uses decomposition:

$$\begin{array}{r} 700\ 30\ 4 \\ - 300\ 60\ 5 \\ \hline \end{array}$$

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.

More Addition and Subtraction Unit 3

Problem solving and reasoning answers

Year 3

Add four hundred and fifty-six to three hundred and seventy-two. **828.**

Have children estimated?

In this and subsequent addition questions, have children set out the expanded addition correctly?

What is the total of two hundred and sixty-eight and two hundred and eighty-six? **554.**

Write the missing numbers

$$643 + 174 = \mathbf{817}$$

$$327 + 258 = \mathbf{585}$$

$$416 + \mathbf{472} = 888 \text{ (Solve by subtracting 416 from 888).}$$

Amit uses 346 Lego pieces in building his model X-wing, and his sister uses 287 in building her Millennium Falcon. How many Lego pieces have they used altogether? **633.**

Fill the gaps in this subtraction:

$$\mathbf{813} - \mathbf{467} = \mathbf{346}.$$

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 4

Complete each diagram:

604	
287	317

912	
44	868

1003	
578	425

NB These are all best solved by counting up rather than decomposition. In the first and third, the larger number (604 and 1003) is just greater than a multiple of 100 and in the second the gap between numbers is small, either side of a multiple of 100.

Here is Ali's homework.

- a. $403 - 265$ 138
- b. $648 - 356$ 292
- c. $752 - 199$ 553
- d. $812 - 754$ 58

Advise him on the most efficient or error-proof subtraction strategy to calculate each one, explaining why you are suggesting that method.

Calculate the answers.

- a) Best solved by Frog (counting up) since 403 is just larger than a multiple of 100; the zero makes decomposition tricky.
- b) Best solved by expanded decomposition as the gap is large.
- c) Best solved by subtracting 200 and adjusting by adding back 1.

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.

- d) Best solved by Frog (counting up) since the numbers are close and either side of a multiple of 100.
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Complete this subtraction calculation that uses decomposition:

$$\begin{array}{r} 600 \quad 120 \quad 14 \\ \cancel{700} \quad \cancel{30} \quad \cancel{4} \\ - \quad \underline{300 \quad 60 \quad 5} \\ \hline \underline{300 \quad 60 \quad 9} = 369 \end{array}$$

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.