

# Reasoning and Problem Solving

## Step 2: Subtract More than 4 Digits

### National Curriculum Objectives:

Mathematics Year 5: (5C2) [Add and subtract whole numbers with more than 4 digits, including using formal written methods \(columnar addition and subtraction\)](#)

### Differentiation:

Questions 1, 4 and 7 (Problem Solving)

**Developing** Find the missing counters and digits in a subtraction. Includes subtracting 5-digit numbers from 5-digit numbers. No exchanging or use of zero as a placeholder. Includes visual representations.

**Expected** Find the missing digits in a subtraction. Includes subtracting 5-digit numbers from 5-digit numbers. Includes exchanging and some use of zero as a placeholder. Includes column method.

**Greater Depth** Find the missing digits in a subtraction. Includes subtracting 5-digit numbers from 5-digit numbers. Includes exchanging and use of zero as a placeholder. Includes use of linear representations for subtractions.

Questions 2, 5 and 8 (Problem Solving)

**Developing** Complete a subtraction with missing digits using digit cards. Subtracting 5-digit numbers from 5-digit numbers. No exchanging or use of zero as a placeholder. Includes use of visual representations.

**Expected** Complete a subtraction with missing digits using digit cards. Subtracting 5-digit numbers from 5-digit numbers. Includes exchanging and some use of zero as a placeholder. Includes use of column subtraction.

**Greater Depth** Complete a subtraction with missing digits using digit cards. Subtracting 5-digit numbers from 5-digit numbers. Includes exchanging and use of zero as a placeholder. Includes use of linear representations of subtractions.

Questions 3, 6 and 9 (Reasoning)

**Developing** Find and explain the mistake/s in a column subtraction. Includes subtracting 5-digit numbers from 5-digit numbers. No exchanging or use of zero as a placeholder. Includes use of visual representations.

**Expected** Find and explain the mistake/s in a column subtraction. Includes subtracting 5-digit numbers from 5-digit numbers. Includes exchanging and use of zero as a placeholder. Includes use of column subtractions.

**Greater Depth** Find and explain the mistake/s in a column subtraction. Includes subtracting 5-digit numbers from 5-digit numbers. Includes exchanging and examples of unconventional partitioning. Some numbers written in words.

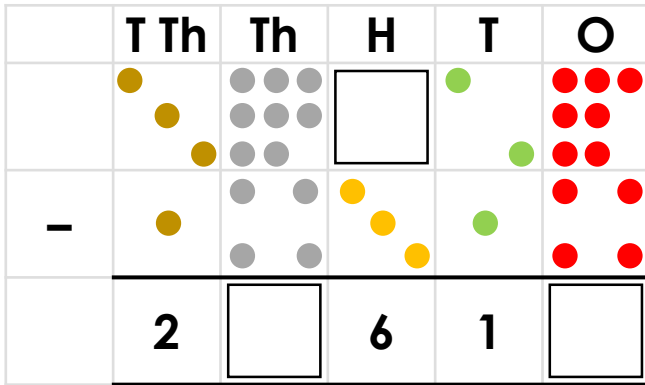
More [Year 5 and Year 6 Addition and Subtraction](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

# Subtract More than 4 Digits

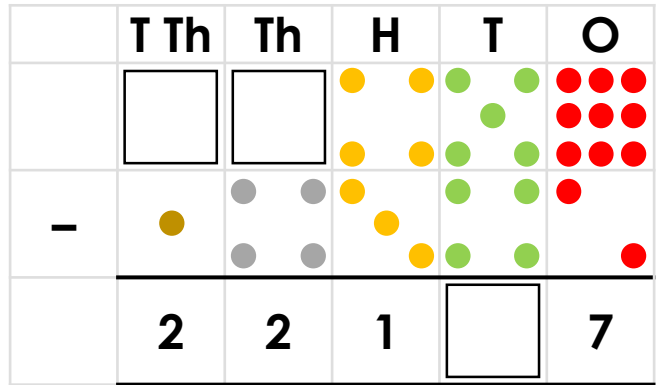
# Subtract More than 4 Digits

1a. Find the missing counters and digits in the subtraction.



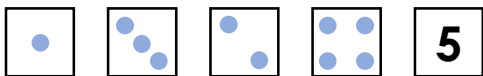
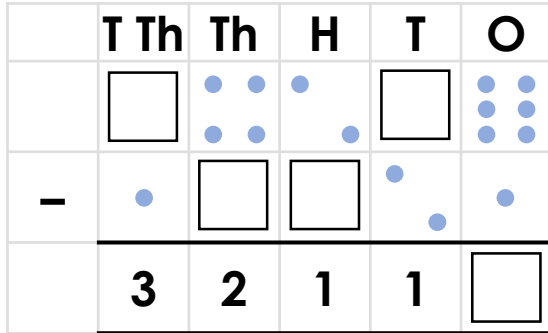
5 PS

1b. Find the missing counters and digits in the subtraction.



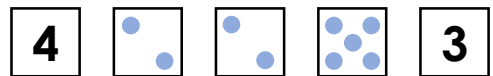
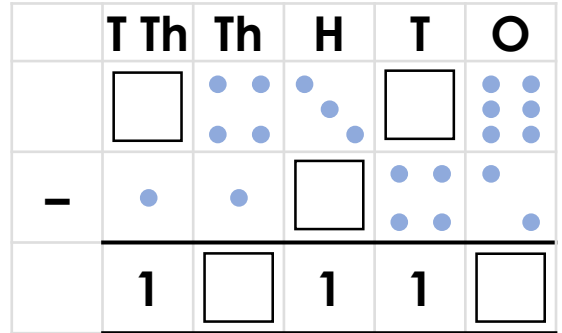
5 PS

2a. Use the counter and digit cards to complete the subtraction.



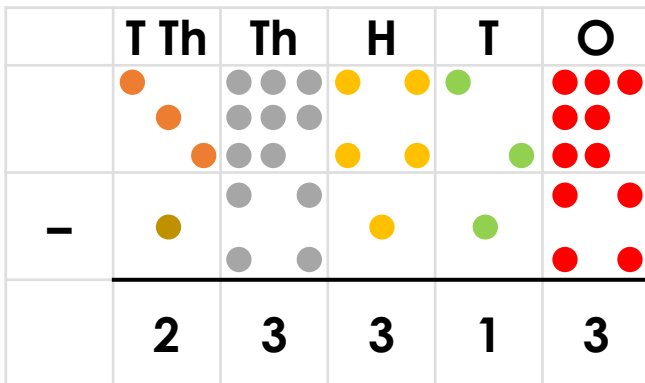
5 PS

2b. Place the missing counters and digits to complete the calculation below.



5 PS

3a. Alf has used column method to complete the subtraction below.

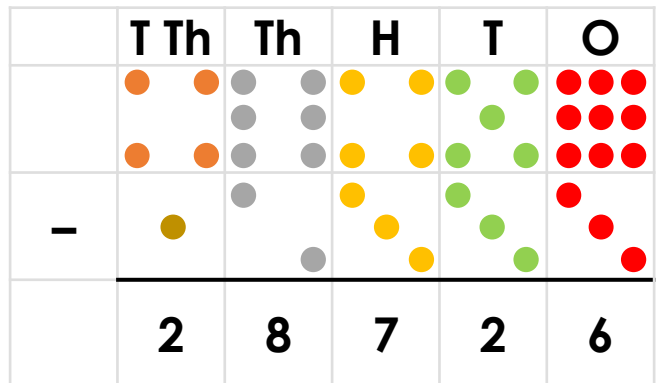


Is he correct? Explain why.



5 R

3b. Tia has used column method to complete the subtraction below.



Is she correct? Explain why.



5 R

## Subtract More than 4 Digits

## Subtract More than 4 Digits

4a. Find the missing digits in the subtraction.

	3	<input type="text"/>	1	4	3
-	1	9	8	4	<input type="text"/>
	<input type="text"/>	0	2	9	6



5 PS

4b. Find the missing digits in the subtraction.

	<input type="text"/>	8	5	2	7
-	2	4	1	<input type="text"/>	3
	2	4	<input type="text"/>	3	4



5 PS

5a. Use the digit cards to complete the subtraction.

	<input type="text"/>	7	<input type="text"/>	1	<input type="text"/>
-	5	<input type="text"/>	8	<input type="text"/>	3
	1	0	3	9	6

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	6	9	6	2



5 PS

5b. Use the digit cards to complete the subtraction.

	4	<input type="text"/>	3	5	<input type="text"/>
-	<input type="text"/>	9	2	<input type="text"/>	1
	2	9	<input type="text"/>	7	5

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8	6	0	8	1



5 PS

6a. Kai has used column method to answer the subtraction below.

	<sup>2</sup> <del>3</del>	<sup>1</sup> <del>2</del>	<sup>1</sup> 0	4	3
-	1	0	8	4	2
	1	1	2	1	1

Is he correct? Explain why.



5 R

6b. Leah has used column method to answer the subtraction below.

	5	<sup>1</sup> 0	5	2	7
-	2	2	1	0	3
	3	9	4	0	4

Is she correct? Explain why.



5 R

## Subtract More than 4 Digits

## Subtract More than 4 Digits

7a. Find the missing digits in the subtraction.

$$61,2\text{█} - 17,984 = \text{█},273$$



5 PS

7b. Find the missing digits in the subtraction.

$$\text{█},402 - 17,\text{█} = 12,752$$



5 PS

8a. Use the digit cards to complete the subtraction.

$$\text{█},248 - 12,\text{█}04 = 42,4\text{█}$$

8   4   5   5   4



5 PS

8b. Use the digit cards to complete the subtraction.

$$\text{█},300 - 28,6\text{█} = 4\text{█},\text{█}98$$

0   2   6   2   7



5 PS

9a. Tim has used column method to answer a subtraction and has written it out below.

8 ten thousands, 200 tens and 9 ones subtract 37 thousands, 98 tens and 3 ones equals 42 thousands, 220 tens and 7 ones.

Is he correct? Explain why.



5 R

9b. Ava has used column method to answer a subtraction and has written it out below.

500 hundreds, 8 tens and 0 ones subtract 2 ten thousands, 9 thousands and 826 ones equals 200 hundreds, 26 tens and 3 ones.

Is she correct? Explain why.



5 R

## Reasoning and Problem Solving Subtract More than 4 Digits

### Developing

1a.  $38,927 - 14,314 = 24,613$

2a.  $44,236 - 12,121 = 32,115$

3a. Alf is incorrect. He has subtracted the thousands columns incorrectly. The correct answer should be 24,313.

### Expected

4a.  $30,143 - 19,847 = 10,296$

5a.  $67,219 - 56,823 = 10,396$

6a. Kai is incorrect. He has subtracted the tens and ten thousands columns incorrectly. The correct answer should be 21,201.

### Greater Depth

7a.  $61,257 - 17,984 = 43,273$

8a.  $55,248 - 12,804 = 42,444$

9a. Tim is incorrect. He has subtracted the ones, hundreds and thousands columns incorrectly. The correct answer should be 44,026.

## Reasoning and Problem Solving Subtract More than 4 Digits

### Developing

1b.  $36,459 - 14,342 = 22,117$

2b.  $24,356 - 11,242 = 13,114$

3b. Tia is incorrect. She has added the hundreds and thousands columns instead of subtracting. She has also subtracted the ten thousands column incorrectly. The correct answer should be 34,126.

### Expected

4b.  $48,527 - 24,193 = 24,334$

5b.  $48,356 - 19,281 = 29,075$

6b. Leah is incorrect. She has subtracted the tens and thousands columns incorrectly. She has also forgotten to change the 5 to a 4 in the ten thousands column after exchanging. The correct answer should be 28,424.

### Greater Depth

7b.  $30,402 - 17,650 = 12,752$

8b.  $71,300 - 28,602 = 42,698$

9b. Ava is incorrect. She has subtracted the ones and tens columns incorrectly. The correct answer should be 20,254.