

Reasoning and Problem Solving

Step 5: 1,000s, 100s, 10s, 1s

National Curriculum Objectives:

Mathematics Year 4: (4N3a) [Recognise the place value of each digit in a four-digit number \(thousands, hundreds, tens, and ones\)](#)

Mathematics Year 4: (4N4a) [Identify, represent and estimate numbers using different representations](#)

Mathematics 4: (4N6) [Solve number and practical problems that involve 4N1 - 4N5 and with increasingly large positive numbers](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Create the largest and smallest number from 4 given digits using understanding of place value in numbers up to 9,999 without zero as a place holder and adhering to a set limitation.

Expected Create the largest and smallest number from 4 given digits using understanding of place value in numbers up to 9,999 with zero as a place holder and adhering to a set limitation.

Greater Depth Create four 4-digit numbers from given digit cards using understanding of place value in numbers up to 9,999 with zero as a place holder and adhering to a set limitation.

Questions 2, 5 and 8 (Problem Solving)

Developing Identify and explain who is correct using understanding of place value in numbers up to 9,999 without zero as a place holder.

Expected Identify and explain who is correct using understanding of place value in numbers up to 9,999 with some use of zero as a place holder.

Greater Depth Identify and explain who is correct using understanding of place value in numbers up to 9,999 with some use of zero as a place holder and unconventional partitioning.

Questions 3, 6 and 9 (Reasoning)

Developing Recognise and explain which out of three 4-digit numbers matches the Base 10 using understanding of place value in numbers up to 9,999 without zero as a place holder.

Expected Recognise and explain which out of three 4-digit numbers matches the place value counters, using understanding of place value in numbers up to 9,999 with some use of zero as a place holder.

Greater Depth Recognise and explain which out of three 4-digit numbers matches the place value counters, using understanding of place value in numbers up to 9,999 with some use of zero as a place holder and unconventional partitioning.

More [Year 4 Place Value](#) resources.

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

1,000s, 100s, 10s, 1s

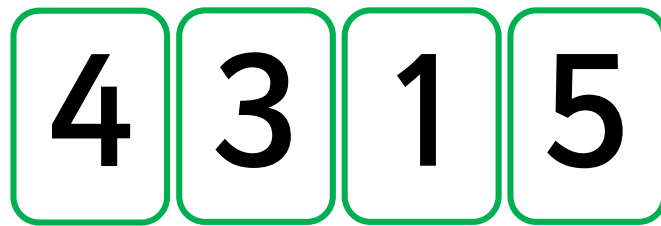
1,000s, 100s, 10s, 1s

1a. Find the smallest and largest 4-digit number you can make using these digits. The 8 must be in the ones column.



PS

1b. Find the smallest and largest 4-digit number you can make using these digits. The 1 must be in the tens column.



PS

2a. Pippa and Hans are discussing place value.



Pippa

The number shown is 4,297.

No, the number shown is 4,197.



Hans



Who is correct? Explain your answer.



PS

2b. Chen and Kim are discussing place value.



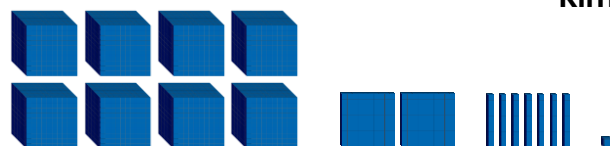
Chen

The number shown is 8,217.

No, the number shown is 8,271.



Kim

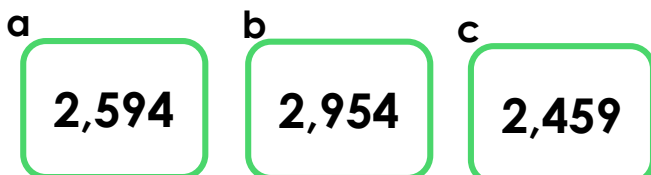


Who is correct? Explain your answer.



PS

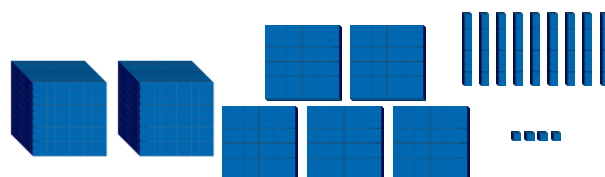
3a. Which number matches the Base 10?



2,594

2,954

2,459

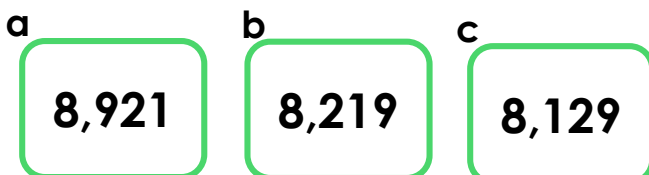


Explain your answer.



R

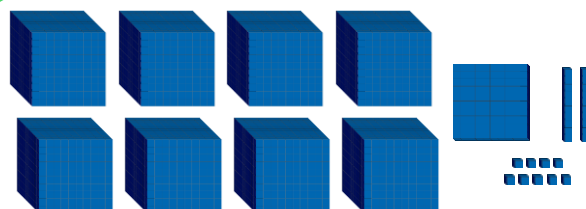
3b. Which number matches the Base 10?



8,921

8,219

8,129



Explain your answer.



R

1,000s, 100s, 10s, 1s

1,000s, 100s, 10s, 1s

4a. Find the smallest and largest 4-digit number you can make using these digits. The 0 must be in the hundreds column.



PS

4b. Find the smallest and largest 4-digit number you can make using these digits. The 1 must be in the ones column.



PS

5a. Fatima and Mo are discussing place value.



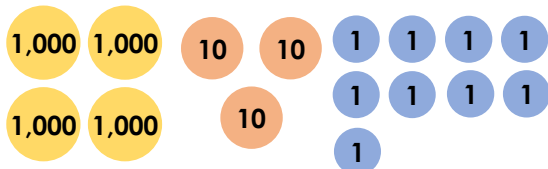
The number shown is 4,039.

Fatima

No, the number shown is 4,390.



Mo



Who is correct? Explain your answer.



PS

5b. Lucy and Tim are discussing place value.



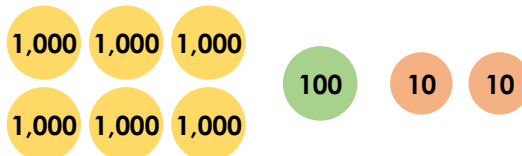
The number shown is 6,210.

Lucy

No, the number shown is 6,120.



Tim

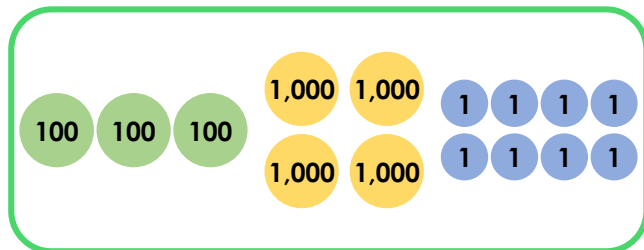
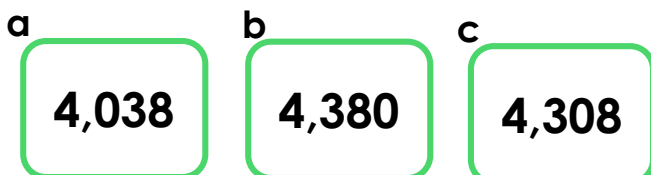


Who is correct? Explain your answer.



PS

6a. Which number matches the counters?

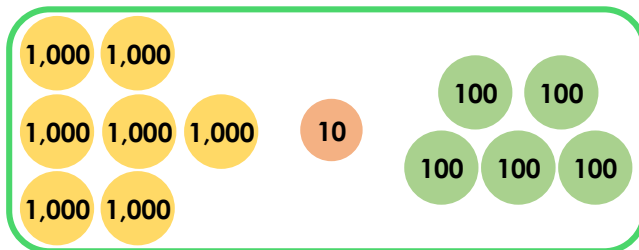
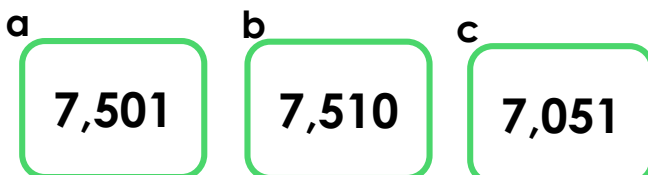


Explain your answer.



R

6b. Which number matches the counters?



Explain your answer.

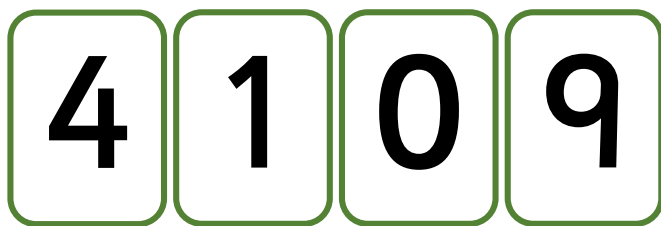


R

1,000s, 100s, 10s, 1s

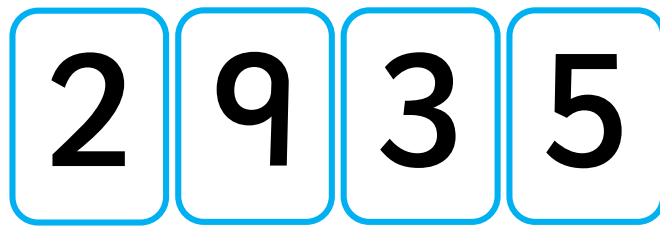
1,000s, 100s, 10s, 1s

7a. Create four 4-digit numbers using the digit cards below. 2 of the numbers should have a greater value in the tens column than the thousands column.



PS

7b. Create four 4-digit numbers using the digit cards below. 2 of the numbers should have a greater value in the ones column than the hundreds column.



PS

8a. Erika and Jake are discussing place value.



Erika

The number shown is 8,430.

No, the number shown is 8,403.



Jake



Who is correct? Explain your answer.



PS

8b. Amy and Jen are discussing place value.



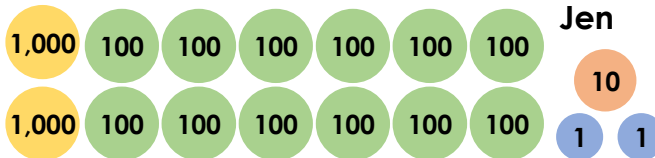
Amy

The number shown is 3,212.

No, the number shown is 3,221.



Jen

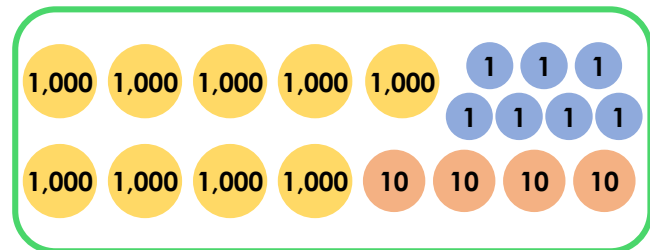
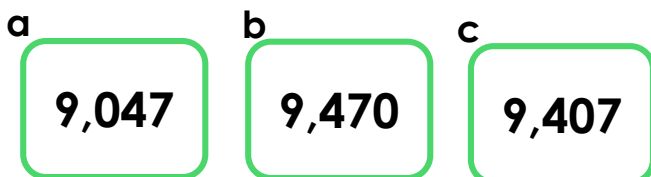


Who is correct? Explain your answer.



PS

9a. Which number matches the counters?

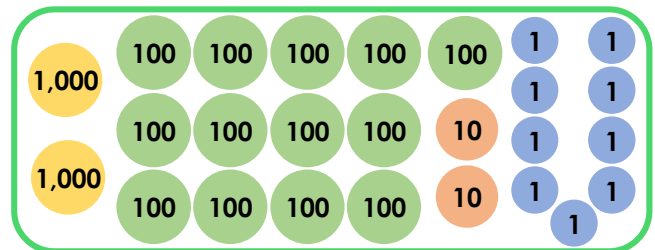
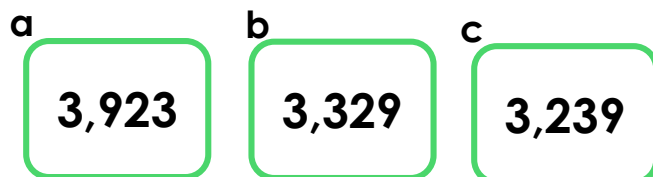


Explain your answer.



R

9b. Which number matches the counters?



Explain your answer.



R

Reasoning and Problem Solving

1,000s, 100s, 10s, 1s

Developing

- 1a. Smallest = 2,498; largest = 9,428
- 2a. Hans is correct as the Base 10 shows 4 thousands, 1 hundred, 9 tens and 7 ones which makes 4,197.
- 3a. A matches the Base 10 as there are 2 thousands, 5 hundreds, 9 tens and 4 ones which make 2,594.

Expected

- 4a. Smallest = 1,038; largest = 8,013
- 5a. Fatima is correct as the counters show 4 thousands, 3 tens and 9 ones which makes 4,039.
- 6a. C matches the counters as there are 4 thousands, 3 hundreds and 8 ones which makes 4,308.

Greater Depth

- 7a. Various answers, for example – 1,490, 1,049, 9,401, 4,109
- 8a. Jake is correct as the counters show 8 thousands, 4 hundreds and 3 ones which makes 8,403.
- 9a. A matches the counters as there are 9 thousands, 4 tens and 7 ones which makes 9,047.

Reasoning and Problem Solving

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Developing

- 1b. Smallest = 3,415; largest = 5,413
- 2b. Kim is correct as the Base 10 shows 8 thousands, 2 hundreds, 7 tens and 1 one which makes 8,271.
- 3b. C matches the Base 10 as there are 8 thousands, 1 hundred, 2 tens and 9 ones which makes 8,129.

Expected

- 4b. Smallest = 1,071; largest = 7,101
- 5b. Tim is correct as the counters show 6 thousands, 1 hundred and 2 tens which makes 6,120.
- 6b. B matches the counters as there are 7 thousands, 5 hundreds and 1 ten which makes 7,510.

Greater Depth

- 7b. Various answers, for example – 3,259, 9,325, 2,593, 5,932
- 8b. Amy is correct as the counters show 2 thousands, 12 hundreds, 1 ten and 2 ones which makes 3,212.
- 9b. B matches the counters as there are 2 thousands, 13 hundreds, 2 tens and 9 ones which makes 3,329.