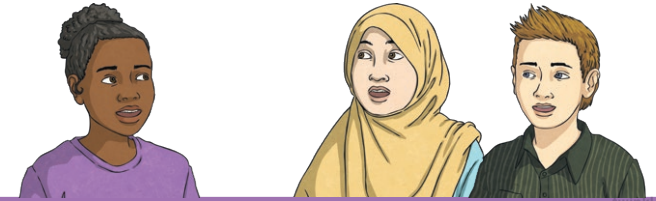# Year 4
Place Value Maths Mastery
Challenge Cards

1. Fatima, Alfie and Laura each describe a number. Which number is the greatest? Explain how you know.

Fatima says, "My number has nine hundreds, five tens and a one."

Alfie says, "My number has seven thousands, four hundreds and five ones."

Laura says, "My number has seven thousands, six tens and eight ones."

2. Alfie says, "Write a four-digit number where the thousands digit is two more than the hundreds digit and three less than the tens digit."

Explain how you found your answer to a friend.

3. Laura says, "Write a four-digit number where the ones digit is three less than the hundreds digit and four more than the thousands digit."
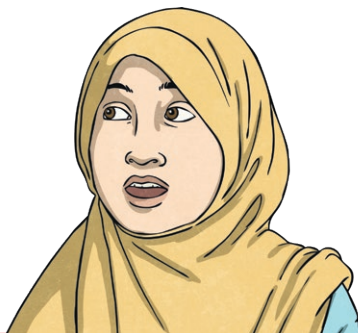
Explain how you found your answer to a friend.

4. Fatima says, "Write a four-digit number where the thousands digit is the same as the total of the hundreds and tens digits, and the ones digit is half of the thousands digit."

Explain how you found your answer to a friend.

5. Alfie writes a four-digit number. Can you work out the number using the clues?

• The sum of the digits is 20.

• One of the digits has no value.

• There are three times as many hundreds as ones.

• There is one more hundred than thousands.

6. Laura writes a four-digit number. Can you work out the number using the clues?

• The sum of the digits is 16.

• One of the digits has one hundred times the value of another digit.

• The hundreds digit is the same as the total of the other three digits.

• The difference between the hundreds digit and the ones digit is 2.

7. Fatima writes a four-digit number. Can you work out the number using the clues?

• The sum of the digits is 10.

• Only two of the digits have value.

• There are more than double the number of thousands than ones.

• There are less than four times the number of thousands than ones.

Year 4 Place Value Maths Mastery

Challenge Cards **Answers**

1. Fatima, Alfie and Laura each describe a number. Which number is the greatest? Explain how you know.

   Fatima says, "My number has nine hundreds, five tens and a one."

   Alfie says, "My number has seven thousands, four hundreds and five ones."

   Laura says, "My number has seven thousands, six tens and eight ones."

   Alfie has the greatest number because he has seven thousands and four hundreds, whereas Laura has seven thousands and no hundreds. Fatima has no thousands.

2. Alfie says, "Write a four-digit number where the thousands digit is two more than the hundreds digit and three less than the tens digit."

   Accept any correct answer, such as 5383.

3. Laura says, "Write a four-digit number where the ones digit is three less than the hundreds digit and four more than the thousands digit."

   Accept any correct answer, such as 1805.

4. Fatima says, "Write a four-digit number where the thousands digit has the same value as the total of the hundreds and tens digits, and the ones digit is half the value of the thousands digit."

   Accept any correct answer, such as 8624.

5. Alfie writes a four-digit number. Can you work out the number using the clues?

   - The sum of the digits is 20.
   - One of the digits has no value.
   - There are three times as many hundreds as ones.
   - There is one more hundred than thousands.

   8903

   The hundreds and ones can be 9 and 3, 6 and 2 or 3 and 1. This means that the thousands would be 8, 5 or 2 respectively. The numbers made would be 8903, 5602 or 2301. 8903 has digits that add to 20.