

Year 3

Recognising Place Value Maths Mastery Challenge Cards



Year 3 Recognising Place Value Maths Mastery Challenge Cards

1. Ruby, Mohammed and Mariam each describe a number.

Ruby says, "My number has four hundreds and five tens."

Mohammed says, "My number has six hundreds and nine ones."

Mariam says, "My number only has eight tens and seven ones."

Which number is the greatest? Explain how you know.



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2. Ruby says, "Write a number where the tens digit is four more than the ones digit and three less than the hundreds digit."

How many different answers can you find?

Explain to a friend how you found all of the possible answers.



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3. Mohammed says, "Write a number where the ones digit is double the tens digit and half of the hundreds digit."

How many different answers can you find?

Explain to a friend how you found all of the possible answers.



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4. Mariam says, "Write a number where the hundreds digit is seven less than the ones digit and five less than the tens digit."

How many different answers can you find?

Explain to a friend how you found all of the possible answers.



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5. Ruby thinks of a number. Can you work out the number using the clues?

- The number has three digits.
- Only two of the digits have value, and they are not adjacent.
- The total of all the digits is nine.
- The hundreds digit is seven more than the tens digit.

Make up your mystery number challenge for a partner.



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6. Mohammed thinks of a number. Can you work out the number using the clues?

- The number has three digits.
- The value of the hundreds digit is the same as the total of the other digits.
- The tens digit is two more than the ones digit and three less than the hundreds digit.

Make up your mystery number challenge for a partner.



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7. Mariam thinks of a number. Can you work out the number using the clues?

- The number has three digits.
- The value of the hundreds digit is the same as the difference between the other digits.
- The value of the hundreds digit is the smallest it can be.
- The value of the tens digit is the greatest it can be.

Make up your mystery number challenge for a partner.



Year 3 Recognising Place Value Maths Mastery Challenge Cards **Answers**

1. Ruby, Mohammed and Mariam each describe a number.

Ruby says, "My number has four hundreds and five tens."

Mohammed says, "My number has six hundreds and nine ones."

Mariam says, "My number only has eight tens and seven ones."

Which number is the greatest? Explain how you know.

Mohammed's number is the greatest because it has six hundreds.

Ruby's number only has four hundreds and Mariam's has none.

2. Ruby says, "Write a number where the tens digit is four more than the ones digit and three less than the hundreds digit."

How many different answers can you find?

740, 851, 962

3. Mohammed says, "Write a number where the ones digit is double the tens digit and half of the hundreds digit."

How many different answers can you find?

412, 824

4. Mariam says, "Write a number where the hundreds digit is seven less than the ones digit and five less than the tens digit."

How many different answers can you find?

168, 279

5. Ruby thinks of a number. Can you work out the number using the clues?

- The number has three digits.
- Only two of the digits have value, and they are not adjacent.
- The total of all the digits is nine.
- The hundreds digit is seven more than the tens digit.

702

6. Mohammed thinks of a number. Can you work out the number using the clues?

- The number has three digits.
- The value of the hundreds digit is the same as the total of the other digits.
- The tens digit is two more than the ones digit and three less than the hundreds digit.

853

7. Mariam thinks of a number. Can you work out the number using the clues?

- The number has three digits.
- The value of the hundreds digit is the same as the difference between the other digits.
- The value of the hundreds digit is the smallest it can be.
- The value of the tens digit is the greatest it can be.

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