

# **Puzzle time**

### **Digit detector**

You have got to be a detective to sole the problem below.

What is the least number of calculations you need to do to be absolutely certain of how much Norman Number is worth?

You must do them in the order shown.

#### **How many am I?**

- 1. I am a three digit number.
- 2. I am an odd number.
- 3. I am divisible by 5.
- 4. Each of my digits is different.
- 5. My digits add up to 8.
- 6. The tens digit is smaller than the hundreds digit.
- 7. I am less than 300.
- 8. I have only one even digit.





## Puzzle time

## Digit detector. The answer

You could be certain of the answer to this after 7 moves:

1. 3 digit number any three digit number

2. Odd number: so the last digit must be 1,3,5,7 or 9

3. Divisible by 5: so last digit must be 5 (as it is also odd.)

4. Each digit different:

5. Digits add up to 8: as the last digit is 5, the hundreds and

tens must add up to 3.

They could be 3 and 0 or 2 and 1.

6. Tens digit smaller than hundreds digit: so it must be 305 or 215.

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7. Less than 300: the number must be 215

You might have guessed the answer earlier, but you could not be absolutely certain until you had 7 pieces of information.

