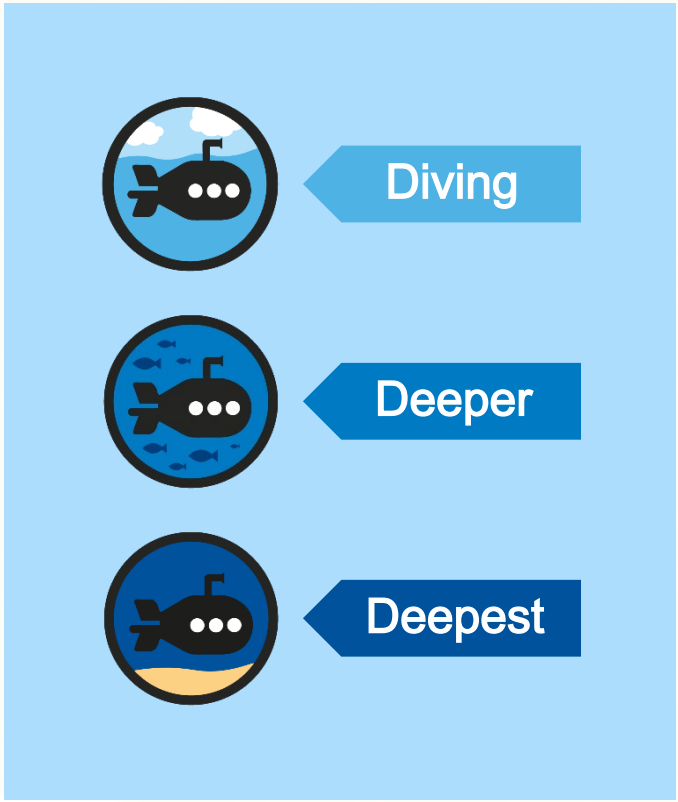
Diving into Mastery

Prime Numbers

Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:

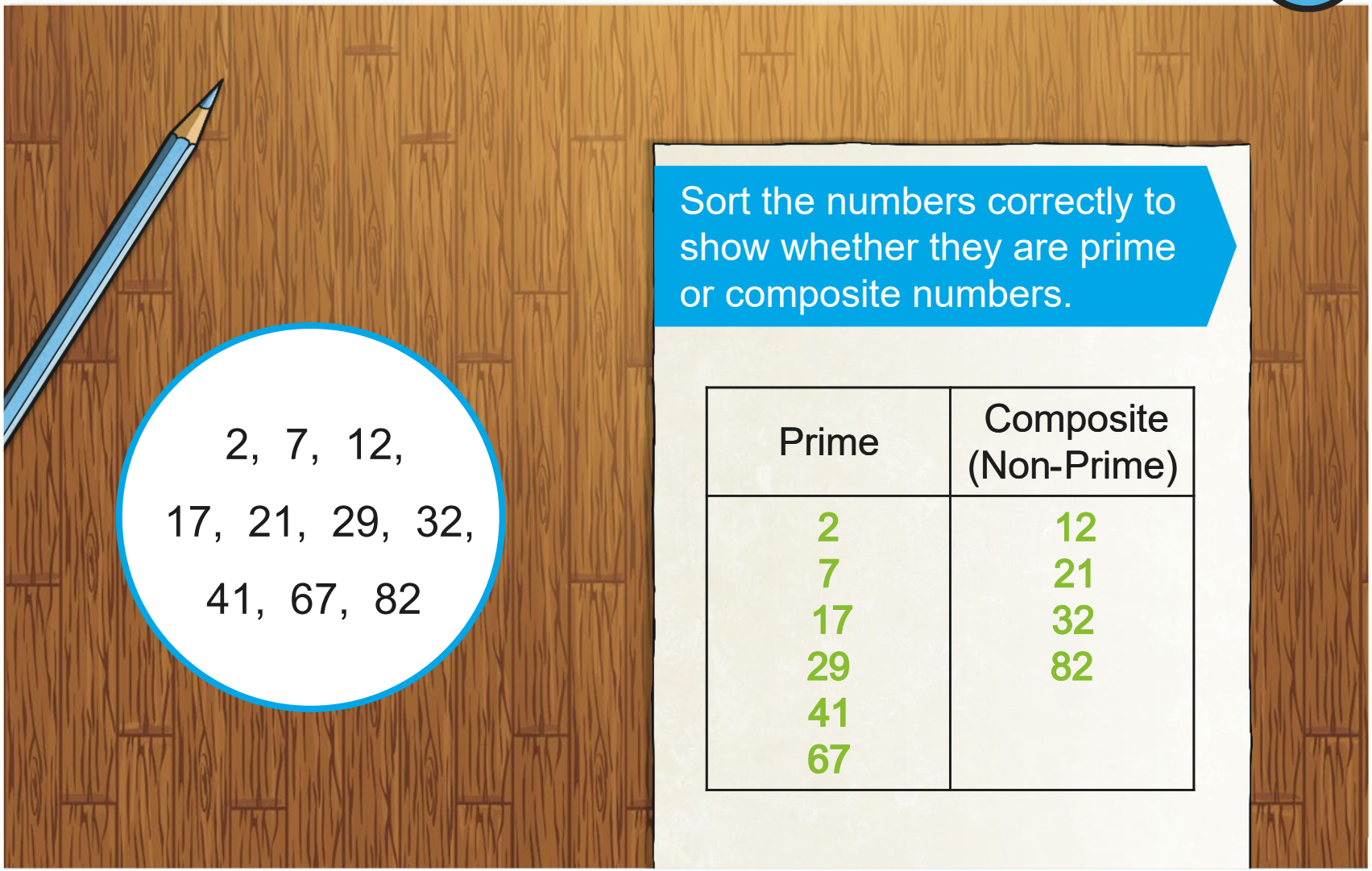


These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

Aim

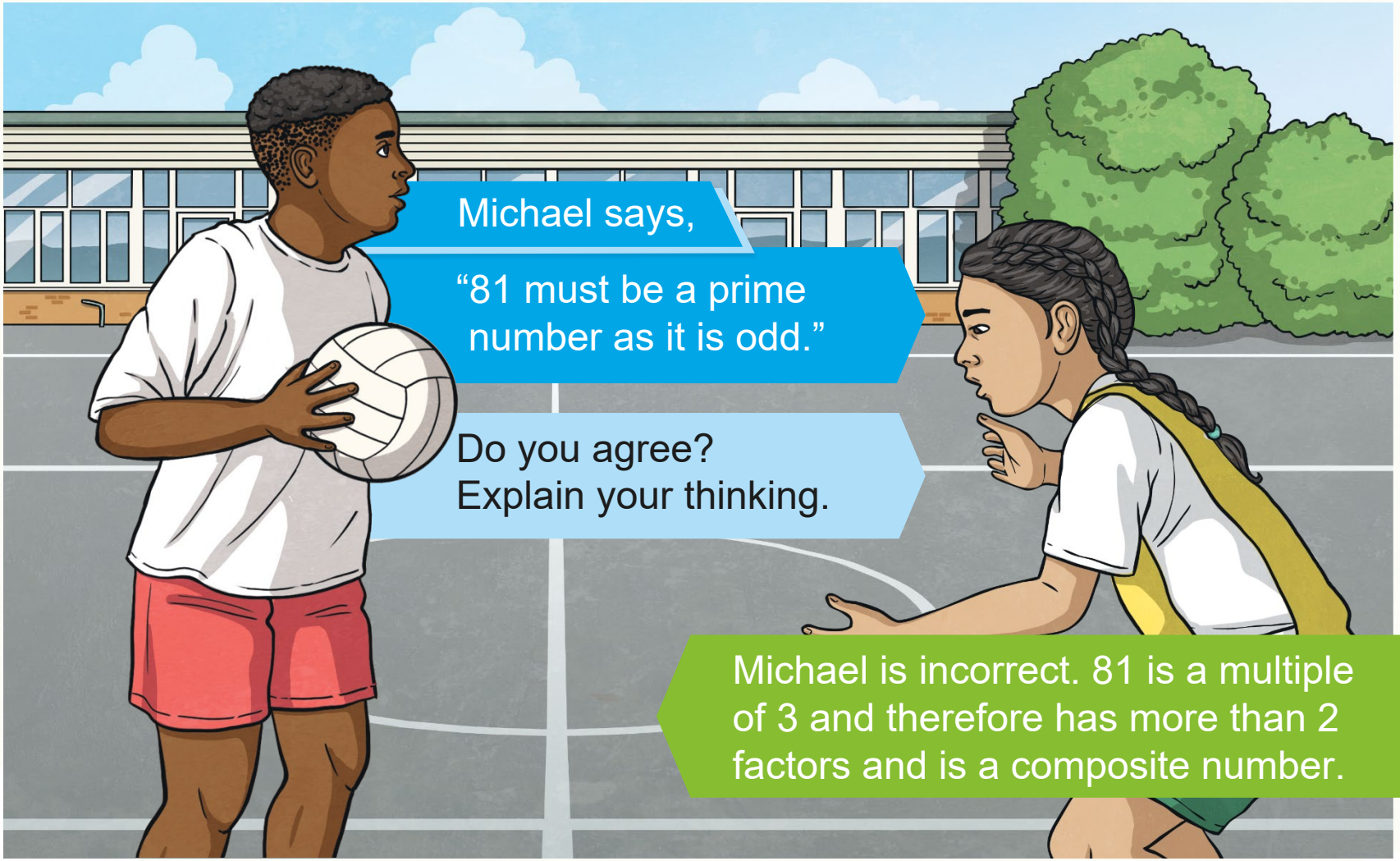
- Establish whether a number up to 100 is prime and recall prime numbers up to 19.



2, 7, 12,
17, 21, 29, 32,
41, 67, 82

Sort the numbers correctly to show whether they are prime or composite numbers.

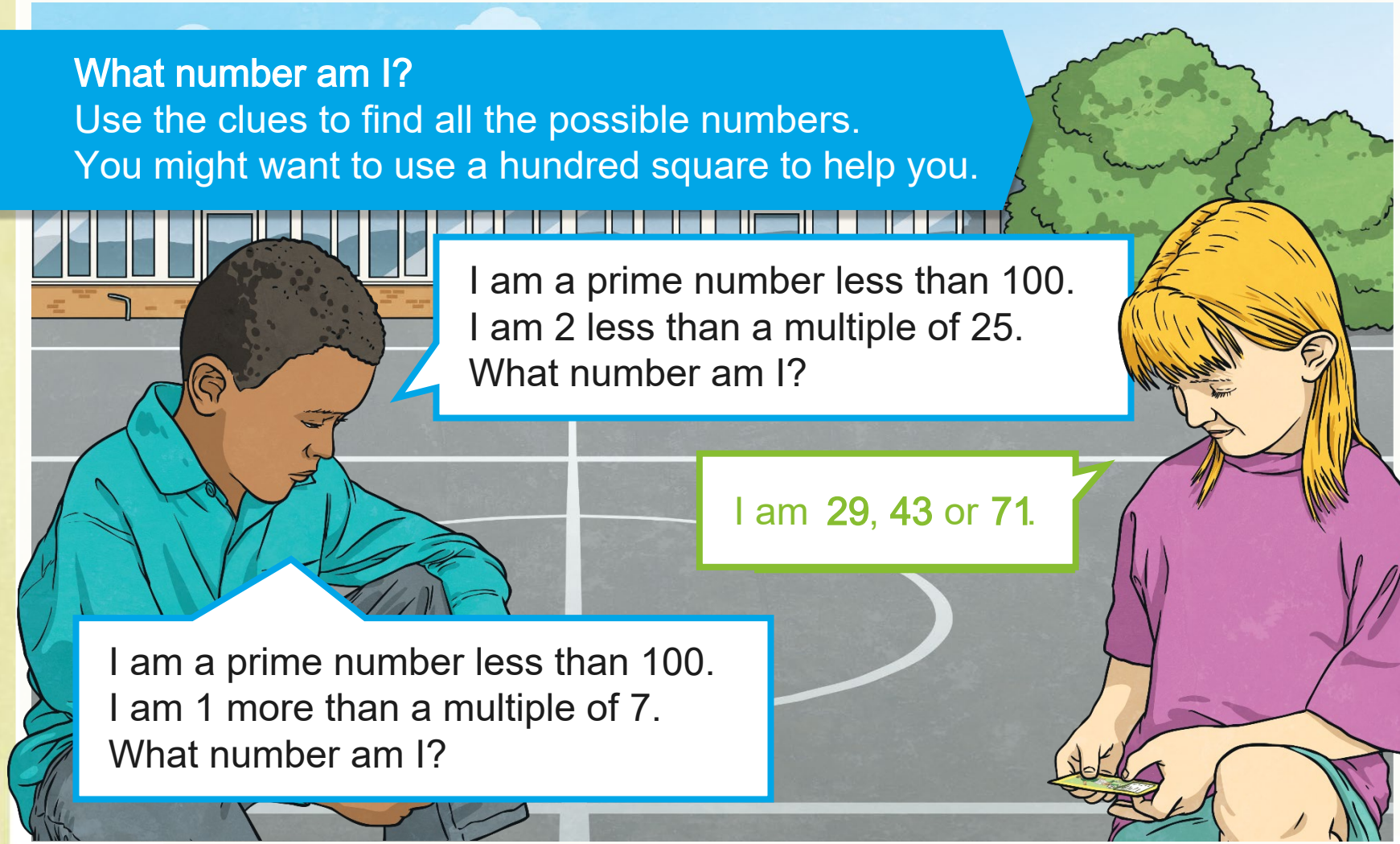
Prime	Composite (Non-Prime)
2 7 17 29 41 67	12 21 32 82



Prime Numbers | Deeper

What number am I?

Use the clues to find all the possible numbers.
You might want to use a hundred square to help you.



Amira sets a challenge for her friend Marc.

I am thinking of a number.
It is greater than 50. It is less than 80. It is a prime number.
The sum of its digits is an odd number.

Can you find all the possible numbers she could be thinking of?

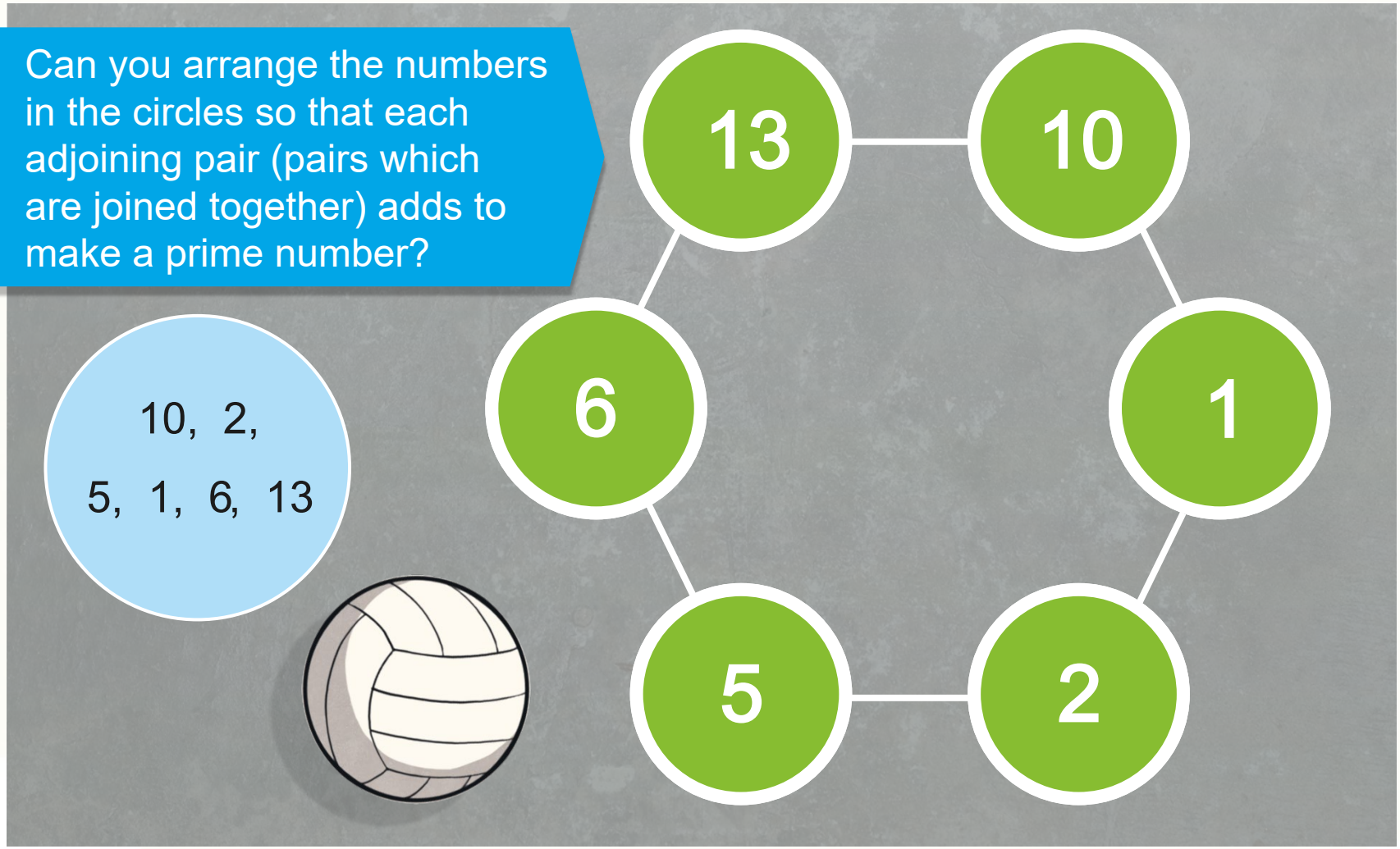
There are four possibilities.

Marc

Is Marc correct?
Explain your reasoning.

Marc is incorrect. There are two numbers that fit all the criteria: 61 and 67. They are both greater than 50, less than 80 and they are both prime. Their digit sums are both odd.

Can you arrange the numbers in the circles so that each adjoining pair (pairs which are joined together) adds to make a prime number?



10, 2,

5, 1, 6, 13

Prime Numbers

Dive in by completing your own activity!