

Investigation

Investigating remainders

1262

1862

1922

- Choose one of the numbers and divide it in turn by 3, 4, 5 and 6.
- Record each division, and the remainder, what do you notice?
- Now try the same with the other two numbers, what happens this time?
- How can you explain this?

Clue!

Try subtracting 2 from each of the three starting numbers and think about what you know about factors and multiples...

- Find the difference between 1862 and 1262; then between 1922 and 1862.
- Use that information to find two more numbers that will give you the same results when you divide them by 3, 4, 5 and 6.
- How can you be sure without even trying out the divisions?



Wow!
That's amazing...

Challenge

Can you find three 5-digit numbers that will also produce the same remainder when dividing by 3, 4, 5 and 6?
Try to include at least one number that doesn't begin with 6!