

Tuesday 2nd February

Place value puzzles

1. Write any 3-digit number.
Subtract your choice of 1-digit number.
Is your answer a multiple of 100?

No: Adjust your starting number so that when you subtract your chosen 1-digit number, the answer is a multiple of 100.

Yes: Go to question 2.
2. Write three other 3-digit numbers that share this property.
What property do these numbers all share?
3. Write four 3-digit numbers where subtracting a number more than 90 gives a multiple of 100.
What property do these numbers all share?
4. Write four 3-digit numbers where subtracting a number greater than 500 gives a 2-digit number.
What property do these numbers all share?
5. Write four 3-digit numbers where subtracting 99 gives a 2-digit number.
6. Make up another puzzle like this for your partner to try.

Challenge

How many times can I add 110 to 209 before I get over 1000?

What 3-digit number should I start with to enable me to add 111 eight times and get 998?