# Investigation
## Remainder runners

1. Calculate 1234 ÷ 3, 2345 ÷ 3, 3456 ÷ 3, 4567 ÷ 3, 5678 ÷ 3 and 6789 ÷ 3.

   What do you notice about the remainders?

2. Divide the same numbers by 4.
   After the first five, can you predict what the next remainder will be?

3. What do you think the pattern will be if you divide by 5? Try it out!

4. With a partner, split the questions between you to divide the same numbers by 6, 7, 8... all the way up to 12 if you like!
   What patterns do you find?
   Did any surprise you?

Which patterns of remainders are similar to when you are dividing by 3 and 4?
Which are different?
Which of these are similar to each other?
Do ALL divisors give a pattern?