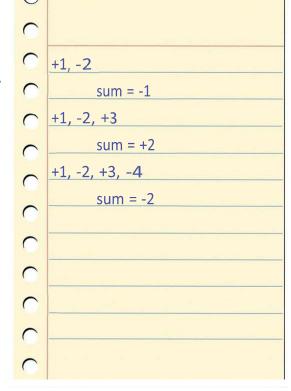# Investigation
Alternating chains

1. Start a chain of positive and negative numbers.

2. Find the sum of the numbers in the chain. Is the sum positive or negative?

3. Make the chain one number longer. Find its sum. Is it positive or negative?

4. Make the chain one number longer. Find its sum. Is it positive or negative?

5. Continue like this until you have a chain with 12 numbers.

    Look at the pattern. Can you predict what the sum of a chain of 20 numbers would be?

    What would the sum of a chain of 21 numbers be?

    Try different types of number in your chain, e.g. +1, -3, then +1, -3, +5, then +1, -3, +5, -7, and so on.

    Try square numbers… +1, -4, +9, -16, etc.

+1, -2

       sum = -1

+1, -2, +3

       sum = +2

+1, -2, +3, -4

       sum = -2