

Consecutive sums.

What happens if you add together pairs of consecutive numbers?

$$14 + 15 =$$

$$7 + 8 =$$

$$0 + 1 =$$

$$99 + 100 =$$

What do you notice? Try with some pairs of your own. Try to be systematic - and record your results in a table. Is there a pattern in the solutions?

Now try with 3 consecutive numbers. What results occur now? With 4 consecutive numbers, etc?

Are there any numbers which cannot be made as the result of adding consecutive numbers, however many you use?