

Here are some different ways in which we can split 100:

$$30 + 70 = 100$$

$$20 + 80 = 100$$

$$21 + 56 + 23 = 100$$

$$10 + 10 + 10 + 10 + 10 + 10 + 20 + 20 = 100$$

The products of these sets are all different:

$$30 \times 70 = 2100$$

$$20 \times 80 = 1600$$

$$21 \times 56 \times 23 = 27048$$

$$10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 20 \times 20 = 400000000$$

What is the largest product that can be made from whole numbers that add up to 100?

Choose another starting number and split it in a variety of ways.
What is the largest product this time?

Can you find a strategy for splitting **any** number so that you always get the largest product?