



# Problem of the Week

## Problem C

### One Off

Gregor has decided to create a new sequence that starts with the numbers 4, 1, 5, 6, 11, ... where each term after the first two terms is found by adding the two previous terms. On the 25<sup>th</sup> term, his addition was off by 1. That is, the sum was 1 greater than the correct one. If he made no other mistakes, how far off was the 35<sup>th</sup> term?

$$\text{Term 1} = 4$$

$$\text{Term 2} = 1$$

$$\text{Term 3} = \text{Term 1} + \text{Term 2} = 4 + 1 = 5$$

$$\text{Term 4} = \text{Term 2} + \text{Term 3} = 1 + 5 = 6$$

$$\text{Term 5} = \text{Term 3} + \text{Term 4} = 5 + 6 = 11$$

⋮

