

November 21st

Twelve consecutive integers are added together.

What is the remainder when the sum is divided by four?

Twelve consecutive numbers are of the form

$n - 5, n - 4, n - 3, \dots, n, n + 1, \dots, n + 5, n + 6$

Therefore their sum is

$$12n + 6 =$$

$$4(3n + 1) + 2$$

So the remainder will be **2**