

Test Flight Problem Set 2

Proposition: The sum of any five consecutive integers is divisible by 5 (without remainder).

The proposition is True

Proof:

Pick an arbitrary integer n

Let the five consecutive integers be: $n, n+1, n+2, n+3, n+4$

By arithmetic, their sum is $5n + 10$

$5n + 10$ is divisible by 5 for any n , completing the proof