

Mathematical Thinking.

Test Flight Assignment Solutions.

Okon Samuel

Question 2

Proposition 1. *The sum of any 5 Consecutive Integers is divisible by 5.*

Proof. Let $x, x + 1, x + 2, x + 3, x + 4$ be any 5 consecutive integers.

Then, $x + (x + 1) + (x + 2) + (x + 3) + (x + 4) = 5x + 10$

$\Rightarrow 5|(5x + 10)$ (Since $5|5x$ and $5|10$).

Hence the sum of any 5 consecutive Integers is divisible by 5. □