Problem 6

proof:

Firstly, we assume that there exists another prime triple such as n, $n+2$, $n+4$.

Because this prime triple is not equal to the prime triple 3,5,7. So we know $n > 3$.

From **Problem 5**, we get that ***for any integer n, at least one of the integers n, n+2, n+4 is divisible by 3.***Applying this to this problem, then one of n, n+2, n+4 is divisible by 3, it means that the number is not a prime! There is a contradiction. So that our assumption is wrong. And the **Theorem** is right.

The proof is complete.