

Question 6.

Proof: According to Question 5, For any integer  $n$ ,  ~~$n, n+2, n+4$~~ <sup>At least one</sup>, at least one of  $n, n+2, n+4$  is divisible by 3.

if  $n > 3$ , then at least  $n+2$  or  $n+4$  are not prime (because <sup>at least</sup> one of them can be divided by 3)

if  $n = 3$ , then 3, 5, 7 are prime triple.

if  $n = 2$ , then ~~the~~ the series will be 2, 4, 6. both 4 and 6 are not prime.

Thus, 3, 5, 7 ~~are~~ is the only prime triple.