In 1996, Ronald Graham asked the question about the minimum number of monochromatic triples \((x, y, z)\) satisfies equation \(x + y = z\) of any 2-coloring of the interval \([1, n]\). The answer was confirmed by many people to be \(\frac{n^2}{22} + O(n)\).

Recently Wong and myself showed that the minimum numbers of monochromatic triples of the form \(\{x, y, x + ay\}, a \geq 2\) are \(\frac{n^2}{2a(a^2+2a+3)} + O(n)\). We will also mention about the conjectures of other equations. (Received September 09, 2016)