Impossible Sums - Proof 2

Cut out the statements and put them in order, to prove that powers of 2 cannot be written as the sum of two or more consecutive numbers.

Therefore if n is odd, the total will have an odd factor greater than 1, so cannot be a power of 2	A
Since the numbers are evenly spread out, the mean is equal to the median	B
The total will be $n \times m$, so the total will have an odd factor, which is equal to n	C
Take n consecutive numbers, where $n > 1$	D
The sum of the numbers is equal to the mean of the numbers multiplied by n	E
Since the middle pair are consecutive numbers, we know that $(a + b)$ is odd, therefore the total will have an odd factor, which is equal to $(a + b)$	F
The total will be $\frac{n}{2}(a + b)$, so will have a factor equal to $(a + b)$	G
If n is odd then the median will be the same as the middle number, m	H
Therefore the total of n consecutive numbers has an odd factor greater than 1, for both odd and even values of n, and so it can never be a power of 2	I
If their total is a power of 2, all the factors of the total, other than 1, will be even	J
Therefore if n is even, the total will have an odd factor greater than 1, so cannot be a power of 2	K
If n is even, then the median will be half-way between the two middle numbers a and b, so the median is $\frac{1}{2}(a + b)$	L