Tiebreaks A

1. How many ordered triples of odd positive integers (a, b, c) are there such that $a + b + c = 11$?

2. What's the sum of all positive integers n, where $n \leq 42$ and n is relatively prime to 42? (a and b are relatively prime if $\gcd(a, b) = 1$.)

3. Parallelogram $ABCD$ has $BC = AD = 14$ and $\angle ABC = 120°$. Suppose that points M and N are drawn on segment BC such that $BM = 4$ and $CN = 3$. Let lines AM and DN intersect at point P, and lines PC and AD intersect at point X. If the minimum possible value of BX is k, find $\lfloor k \rfloor$.