

Laboratory 4

3. Write a predicate to determine all decomposition of n (n given, positive), as sum of consecutive natural numbers.

$$\text{oneSol}(m, i) = \begin{cases} \emptyset, & \text{if } m = 0 \\ i \oplus \text{oneSol}(m-i, i+1), & \text{otherwise} \end{cases}$$

$$\text{decomposition}(m, i) = \begin{cases} \text{oneSol}(m, i), & \text{if } i < m \\ \text{decomposition}(m, i+1), & \text{if } i < m \end{cases}$$