//we assume that a_n is not sorted in any order

//in this pseudo-code indexes are from 1 to n

tripleSum((a_n))

1. $sort\ a_n\ using\ some\ O(n * \log(n))\ running\ time\ algorithm$

2. $for\ i \leftarrow n\ \ downto\ 3\ do$

$first \leftarrow 1,\ last \leftarrow i - 1$

$while(first < last)\ do$

$if\ \ a_{first} + a_{last} < a_i\ \ then\ do$

$first \leftarrow first + 1$

$else\ if\ \ a_i < a_{first} + a_{last}\ \ then\ do$

$last \leftarrow last - 1$

$else\ do$

$print\ \{a_{first}, a_{last}, a_i\}$

$first \leftarrow first + 1$

$last \leftarrow last - 1$

Author: Idan Damri