HackerRank For Work

INFO6205_Fall2018_Section... 30 minutes

Question - 1

SCORE: **5 points**

Performance

You have a problem whose execution time is a polynomial function of N, the number of elements in the problem.
That's to say: $t = cN^k$
Which of the following techniques might you consider to reduce the execution time (check all that apply)?

- lessen the coefficient c (e.g. by running on a faster computer);
- Effectively reduce the size of N by dividing the problem into smaller, independent sub-problems (provided that the cost of recombining the solutions doesn't outweigh the benefit).
- Specifying a different value of the exponent k.

Question - 2

SCORE: **20 points**

3 sum problem

Given an array of n integers, are there elements a, b, c in the array such that a + b + c = 0? Find the number of unique triplets in the array which gives the sum of zero.
Hint: be careful not to count duplicates.