Equilateral triangles 3

[Award] **9 pts**

[Category] **Math**

Assume a point D **inside** an equilateral triangle ABC of side length t and with AD = *x*, BD = *y*, CD = *z*, 0 < *x* <= *y* <= *z*, which is represented as quadruple (*x*, *y*, *z*, *t*).

If *x*, *y*, *z*, *t* are all integers and they are coprime, the quadruple (*x*, *y*, *z*, *t*) is called primitive integer solution. For example, (57, 65, 73, 112) is such a solution. And it’s known that there are infinitely many solutions of primitive integer quadruple (*x*, *y*, *z*, *t*).

Find all such solutions for *t* <= 5000.

Answer format: [number of solutions],[sum of *x* + *y* + *z* + *t* of all solutions]

Example: 3,1237 for *t* <= 200.

(Explanation: there are 3 solutions (57, 65, 73, 112), (73, 88, 95, 147), (43, 147, 152, 185))

[Answer] **61,385501**