## A few remarks on the expression a + b - c

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As it is well known, the Euler's formula formula a+b-c=2 is valid both for every finite, connected planar graph and every convex polyhedron in  $\mathbb{R}^3$ .

It is probably less known that the same formula holds for some particles in chemistry. The quantity e := a + b - c appears also in the theory of Pythagorean triples/triangles T = (a, b, c), with a, b, c positive integers and  $a^2 + b^2 = c^2$ , and is called the excess of T.

In my lecture, I will be talking about these two less known facts.

## References

[1] D. McCullough. Height and Excess of Pythagorean Triples, Math. Magazine, 78(1): 26-44, 2005.

[2] M. Wójtowicz. Algebraic structures of some sets of Pythagorean triples, II, Missouri J. Math. Sci., 13: 17-23, 2001.