On the equation $x^n + y^n = z^{n-1}$

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Abstract

We prove the non existence of non zero integral solution to the equation $x^n + y^n = z^n$ for few cases by categorizing the triplet (x, y, z).

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References

- [1] L. Euler, *Theorematum quorundam arithmeticorum demonstrationes*, Commentarii academiae scientiarum petropolintanae, 10, 1747, 125-146.
- [2] G. Fatlings, The proof of Fermat's last theorem by R. Taylor and A. Wiles, Notices of the AMS, 42(7), 1995, 743-746.
- [3] A. Wiles, Modular elliptic curves and Fermat's Last theorem, Annals of Mathematics 141(3), 1995, 443-551.
- [4] E. Lampakis, In gaussian integers $x^3 + y^3 = z^3$ has only trivial solutions- A new approach, Electronic Journal of Combinatorial Number Theory, 8, 2008, Article 32.

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