

Mathematical One-Liners (or Almost)

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$1^3 + 2^3 + \dots + n^3 = (1 + 2 + \dots + n)^2$ Why, for heavens sake?

$1^2 + 2^2 + 3^2 \dots + 24^2 = 70^2$ This is the only case of $\sum_{i=1}^N i^2$ being a perfect square.

(Borsuk-Ulam): There exists a pair of antipodal¹ points on the earth's surface which have the same temperature and the same pressure.

If the universe is closed, there exists a pair of antipodal points which have the same temperature, pressure and density².

Fixed Point Theorems: They are obvious. Every map you've ever seen has a big red cross on it saying, "You are here".

What's an anagram of Tarski-Banach? Tarski-Banach Tarski-Banach

For every complex mathematical problem, there is a simple and elegant solution that is completely wrong.

Why didn't Newton discover elliptic functions? Because he wasn't Abel.

¹ i.e. diametrically opposite.

² In general, a surface of dimension N with spherical topology will have antipodal points at which N different scalar fields will be equal.