There are 10 bags of money on a table. Bag 1 contains £1, bag 2 contains £2, ..., bag 10 contains £10. You play the following game against one other person: you each have 100 tokens, which you place next to the bags (and you can't see where your opponent puts their tokens). Whoever puts the most tokens next to bag i wins all the money in bag i, and if there is a tie then no one wins the money in bag i. You'll play this game against all other entrants. Whoever has the most virtual money at the end wins.

To enter, write the number of tokens that you want to place next to each bag, separated by commas. For example
0,10,10,10,10,10,10,10,10,20
would place 0 tokens next to bag 1, 10 tokens next to bags $2, 3, 4, 5, 6, 7, 8, 9$, and 20 tokens next to bag 10.

Unappreciated Results Competition

Once, back when I was in school, one of the exercises in my maths textbook was to derive the following result - the tangents of the three angles of a triangle are always such that their product equals their sum:

$$P + Q + R = 180°$$

$$P + Q = 180° - R$$

$$\tan(P + Q) = \tan(180° - R)$$

$$\frac{\tan(P) + \tan(Q)}{1 - \tan(P).\tan(Q)} = -\tan(R)$$

$$\tan(P) + \tan(Q) = -\tan(R) + \tan(P).\tan(Q).\tan(R)$$

$$\tan(P) + \tan(Q) + \tan(R) = \tan(P).\tan(Q).\tan(R) \quad \text{QED}$$

This result has always stuck with me as being beautiful and elegant, but unappreciated by the mathematical world.

What's your favourite useless-but-beautiful mathematical result that doesn't receive enough appreciation?

I will draw a picture of the winning entry and post it on my Twitter so that it can be appreciated just a little bit more :)

(Please provide your Twitter handle if you want me to include it)

3

Mutant algorithms roam loose across the country, destroying everything in their wake.

Who will save us from their terrible grip?

I am interested in collecting positive and surprising stories of the use of algorithms.

Please tell me about an interesting algorithm

Perhaps a familiar algorithm in an unusual area, or an important context where people might not expect to see the use of an algorithm.

Please include your name and contact email address.

Most surprising positive example wins!