Secret to the perfect pancake described mathematically

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Maths students from the University of Sheffield have swapped calculus for the kitchen by developing a formula to prepare the perfect pancake.

In a collaboration with Meadowhall Shopping Centre, students from the University's Maths Society (SUMS) developed, trialled and tested a formula which enables pancake-lovers across the world to rustle-up pancakes to their own personal preference, taking into account the number of pancakes required, thickness and pan size.

Whether you're feeding a hungry family of six or simply wishing to treat yourself on Shrove Tuesday, the formula which has been turned into a

calculator below will help you prepare the perfect pancake feast.

Tested by chefs at Meadowhall's Frankie and Benny's restaurant, the formula translates to:

Mixture required per pancake: $\dfrac{D^2 \times T \times \pi}{4}$ ml

Total mixture required: $\dfrac{D^2 \times T \times \pi \times P}{4}$ ml

Frying pan diameter: D cm
Desired thickness of pancake: T cm
Number of pancakes wanted: P

Gaby Thompson, President of the University of Sheffield's Maths Society (SUMS), and one of the formula's creators, said: "Cooking is full of scientific and mathematical formulas, so when Meadowhall approached us to see if we'd like to join in the fun, we jumped at the chance.

"Cooking is a fun and innovative way to demonstrate how maths can be used and explored in everyday life and we hope by developing this formula it will encourage more people to engage with the subject and help to combat maths phobia."

Perfect pancake calculator

Tell us how many pancakes you want to make, your preferred pancake thickness and the size of your pan and we'll tell you exactly what you need.

The quantities above are based on [this Delia Smith recipe](#) and are meant only as a guide.

  More information: The Perfect Pancake Calculator is available here: [www.sheffield.ac.uk/news/nr/se … -discovered-1.358297](#)

Provided by University of Sheffield