Maths Society

The Sixth Form Mathematics Society has gone from strength to strength in the last two years with meetings on topics as diverse as the meaning of zero, chaos theory, symmetry and discussions about famous mathematical diagrams. The profile of the subject in the school has been raised by the biennial release of the society hoodies which have gained something of a cult status and can be seen regularly around Bedales. The navy blue 2009 version of the hoodie features Euler's identity:

$$e^{i\pi} + 1 = 0,$$

widely regarded by mathematicians to be the most beautiful equation there is, relating as it does the five most important numbers in maths: 0, 1, e, pi and the delightfully esoteric (but fundamentally important) i, which is the square root of -1. If you thought negative numbers did not have square roots, well... they do! The first hoodie also features the slightly mysterious

$$\sqrt{4036081},$$

although a couple of seconds with a calculator reveals this to be the year, 2009.

An encryption of the date also appears on this year's version of the hoodie (charcoal and silver in colour). They display the Gaussian integral

$$\frac{2}{\sqrt{\pi}} \int_0^{\infty} e^{-\frac{x^2}{(2^{11}-37)^2}} dx$$

which represents the area under the famous "bell curve" beloved by statisticians and examination board moderators. Our Gaussian curve is special, however: the area equates to $2^{11} - 37 = 2011$. Incidentally, both 37 and 2011 are also rather fine examples of prime numbers, only divisible by 1 and themselves.

This year, the Sixth Form society's success has inspired the creation of a Junior Mathematics Society, which runs in activity time. Maths is always a popular choice for study at AS and A level and now interest in the additional option of Further Mathematics is on the rise. Further Maths is a significant step up in pace and difficulty from the standard A-level but it is hugely advantageous for students wishing to go on to study Mathematics, Engineering, Physics or related courses at top universities. This year's 6.1 Further Maths set of ten students is the biggest ever and early indications suggest that next year's set may be bigger still. Bedales Maths is going places.

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