

$+y^3+z^3+xyz-6=0$ $grad f = \left(\frac{\partial f}{\partial x}; \frac{\partial f}{\partial y}\right)$ $\tan x \cdot \cot x = 1$ $2x^2yy' + y^2 = 2$ $x_1 = -11p, x_2 = -p, x_3 = 7p, p \in \mathbb{R}$

On Tuesday 11th November, four Year 6 children were selected to take part in a maths competition for local primary schools at Hurworth Math College. The children had to answer a range of problems both as a team and individually. St. John's came 5th out of 10, which is a fantastic achievement as many of the problems they had to solve were from the Key Stage 3 curriculum! Well done to Millie, Demi-Leigh, Nathan and Alex in Year 6, you really did the school proud!

$x - x = 0, I = (1, 10)$ $\frac{a}{\sin \alpha} = \frac{b}{\sin \beta} = \frac{c}{\sin \gamma}$ $(1+e^x)y' = e^x, y(1)=1$ $y = x^3$ $y = x^2$

$\int \sin^4 x \cdot \cos^3 x dx$ $\cos 2x = \cos^2 x - \sin^2 x$ $A+B+C=8$ $-3A-7B+2C=-10$ $-18A+6B-3C=1$

$\frac{\partial z}{\partial y} = 0, \vec{n} = (F_x'; F_y')$ $\int P(x, \sqrt{\frac{ax+b}{cx+d}}) dx$ $\frac{\sin x}{x} \leq \frac{x}{x} = 1$

$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 0$ $k = 2\sin x \cdot \cos x$ $\frac{1}{x} \arcsin \frac{\sqrt{2}}{2}$ $\eta_1 = \lambda^2 - 3\lambda + 1 \neq 0$

$|z| = \sqrt{a^2 + b^2}$ $\frac{\partial f}{\partial x} = 16 - x^2 + 16y^2 - 4z > 0$ $A = \begin{pmatrix} x & 1+x^2 & 1 \\ y & 1+y^2 & 1 \\ z & 1+z^2 & 1 \end{pmatrix}; x=0, y=1, z=2$ $y' - \frac{1}{x+2} = 0; y(0) = 1$

$\frac{\sin x}{1+\cos x} = \frac{\sin x}{1+\cos x}$

