**Maths (Advocate: Thiago Viana)**

**Calculate the greatest common divisor and least common multiple of a given pair of numbers.**

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| Please provide a short (between 3 to 8 well considered, fully proofread and reflected sentences) explanation that justifies why the evidence/links you have provided is suitable as evidence of this requirement |

**Use relevant theory to sum arithmetic and geometric progressions.**

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**Deduce the conditional probability of different events occurring within independent trials.**

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**Identify the expectation of an event occurring from a discrete, random variable.**

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**Identify simple shapes using co-ordinate geometry.**

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**Determine shape parameters using appropriate vector methods.**

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**Determine the rate of change within an algebraic function.**

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**Use integral calculus to solve practical problems involving area.**

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**Identify multiplicative inverses in modular arithmetic.**

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**Calculate probabilities within both binomially distributed and normally distributed random variables.**

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**Evaluate the coordinate system used in programming a simple output device.**

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**Analyse maxima and minima of increasing and decreasing functions using higher order derivatives.**

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**Produce a detailed written explanation of the importance of prime numbers within the field of computing.**

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**Evaluate probability theory to an example involving hashing and load balancing.**

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**Construct the scaling of simple shapes that are described by vector coordinates.**

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**Justify, by further differentiation, that a value is a minimum.**

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