**Maths (Advocate: Thiago Viana)**

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

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| <https://github.com/MarkB19988/Maths/blob/master/README.md#1-how-to-calculate-the-greatest-common-divisor-and-least-common-multiple>  **COMPLETED** |
| The link above points to a section of my maths repository that explains how to calculate the GCD and LCM of a pair of given numbers. |

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

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| <https://github.com/MarkB19988/Maths/blob/master/README.md#3-algorithm-to-calculate-arithmetic-and-geometric-progressions>  **COMPLETED** |
| This link points to a section of my maths repository that shows an algorithm that sums arithmetic and geometric progressions. |

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

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| <https://github.com/MarkB19988/Maths/blob/master/README.md#4-deduce-the-conditional-probability-of-different-events-occurring-within-independent-trials>  **COMPLETED** |
| This link points to a section of my maths repository that explains how to calculate the probability of rolling a certain number with 2 dice. |

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

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| <https://github.com/MarkB19988/Maths/blob/master/README.md#2-what-is-the-probability-of-a-random-integer-being-divisible-by-5>  **COMPLETED** |
| This link points to a section of my maths repository that shows how to work out the probability of a random integer being divisible by 5, which is 1 in 5. |

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

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| Please use this section to provide all appropriate, valid and checked http Links that point to your evidence; use multiple lines to separate multiple links |
| **To Be Completed (Not Yet Covered In Class)** |

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

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| **To Be Completed (Not Yet Covered In Class)** |

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

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| **To Be Completed (Not Yet Covered In Class)** |

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

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| **To Be Completed (Not Yet Covered In Class)** |

**Identify multiplicative inverses in modular arithmetic.**

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| **To Be Completed (Not Yet Covered In Class)** |

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

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| **To Be Completed (Not Yet Covered In Class)** |

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

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| **To Be Completed (Not Yet Covered In Class)** |

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

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| **To Be Completed (Not Yet Covered In Class)** |

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

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| **To Be Completed (Not Yet Covered In Class)** |

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

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| **To Be Completed (Not Yet Covered In Class)** |

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

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| **To Be Completed (Not Yet Covered In Class)** |

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

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| **To Be Completed (Not Yet Covered In Class)** |