**Maths (Advocate: Thiago Viana)**

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

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| Link: <https://github.com/LukeShead/Maths#calculating-the-lowest-common-multiple-of-two-numbers>  Link: <https://github.com/LukeShead/Maths#calculating-the-greatest-common-divisor> |
| I believe this link justifies me passing this criteria as it explains how to calculate the GCD and the LCM of two numbers as well as showing examples for them. |

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

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| Link: <https://github.com/LukeShead/Maths#arithmetic-and-geometric-progressions> |
| I believe this link justifies me passing this criteria as it shows my knowledge on the topic of the progression, as well as this it shows an algorithm that I created to calculate arithmetic and geometric progression. |

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

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| Link: <https://github.com/LukeShead/Maths/blob/master/README.md#deduce-the-conditional-probability-of-different-events-occurring-within-independent-trials> |
| I believe this link justifies me passing this criteria as it explains how to calculate the probability with a trail example of rolling two dice. |

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

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| Link: <https://github.com/LukeShead/Maths/blob/master/README.md#identify-the-expectation-of-an-event-occurring-from-a-discrete-random-variable> |
| I believe this link justifies me passing this criteria as it gives information of how to identify the probability of a random variable with an equation and example which further explains how it works. |

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

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| Links: <https://github.com/LukeShead/Maths/blob/master/README.md> |
| I believe this link justifies me passing this criteria as I clearly explain how co-ordinate geometry can help identify based on the pattern within the points. |

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

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| <https://github.com/LukeShead/Maths#vector-methods> |
| TO DO (you can leave it blank now, we are going to address this in future sessions) |

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

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| <https://github.com/LukeShead/Maths#rate-of-change> |
| TO DO (you can leave it blank now, we are going to address this in future sessions) |

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

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| <https://github.com/LukeShead/Maths#integral-calculus> |
| TO DO |

**Identify multiplicative inverses in modular arithmetic.**

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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 DO (you can leave it blank now, we are going to address this in future sessions) |

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

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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 DO (you can leave it blank now, we are going to address this in future sessions) |

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

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| Link: <https://github.com/LukeShead/Project-01#the-implementation> |
| In this repository, I explain how I was able to make an NPC follow certain coordinates of a user’s mouse, this justifies the criteria as the project uses coordinates to run therefore is a correct system for the criteria. |

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

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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 DO (you can leave it blank now, we are going to address this in future sessions) |

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

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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 DO (you can leave it blank now, we are going to address this in future sessions) |

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

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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 DO (you can leave it blank now, we are going to address this in future sessions) |

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

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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 DO (you can leave it blank now, we are going to address this in future sessions) |

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

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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 DO (you can leave it blank now, we are going to address this in future sessions) |