**National 5 – Post Prelim Study Plan to Help you gain a pass**

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| Week | Targeted Topic | Examples |
| Week 1 | **Expanding Brackets** |  |
| **Factorising** |  |
| Week 2 | **Simultaneous Equations** | (a) (b) |
| **Functions** | . Find when.  . Find the **values** of when. |
| Week 3 | **Bodmas Rules** | 42 – 7 x 5 ; ((9 + 7 x 3 ) ÷ 10) – 1 |
| **Fractions** | (a) (b) (c) (d) (e)  (a)  (b)  (c)  (d) |
| Week 4 | **Indices** | Simplify   ;  Simplify  ;  Rewrite with positive indices  Evaluate |
| **Scientific Notation** | Calculate |
| Week 5 | **Appreciation / Depreciation** | John buys a flat for £120 000. If it appreciates in value by 6% per year how much is it worth after 5 years? |
| **Compound Interest** | Sarah invests £8500 in a bank that pays 3∙4% interest per annum. If Sarah does not withdraw anything, how much money will she have in the bank after 3 years? Give your answer to the nearest penny. |
| ***Proportion*** | A coat was reduced by 30% in a sale to £105 what was its original price? |
| Week 6 | **Standard Deviation** | A hotel inspector recorded the volume of wine, in millimetres, in a sample of six glasses.  The results were 120 126 125 131 130 124  Use an appropriate formula to calculate the standard deviation. |
| **Mean** | Find the mean volume from the example above |
| Week 7 | **Basic Arcs / Sectors** | Calculate (a) the length of the arc  (b) area |
| Week 8 | **Volumes from Formulae Sheet** | |  |  | | --- | --- | | 9. | A waste bin is made up of a cylinder with a hemisphere on top.  The radius of the cylinder is 18 cm and its height is 60 cm.  Calculate the total capacity of the bin.  Give your answer to the **nearest whole litre.**  18 cm  60 cm | |
| Week 9  ***(Tricky but reoccurring topic)*** | **Pythagoras within a circle** |  |
| Week 10 | **Straight Line** | Find the equation of the line passing through (2, -4) and ( -3, 6)  Find the equation of the line with gradient -1 passing through (0, -3)  ***From past papers*** |
| Week 11  *(Try as many different types of vector qu. as possible, including writing vector coordinates)* | **Vectors** | If ***u*** = and ***v*** =  calculate in component form the value of: (a) ***u*** + ***v*** (b) 2***u*** - ***v*** (c) 3***u*** + 4***v***. |
| Week 12 | **Using Quadratic Formula** | * .   Solve the equation using the quadratic formula giving your answers correct to one decimal place. |
| Week 13  ***(remember to always refer to the formula sheet for cosine and sine rules if you see a question in the exam like this)*** | **Sine Rule/ Cosine Rule** |  |