Student’s comments or questions

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| **H Unit 4: Multiplicative Reasoning** | | **Year 10 Road Map** | | | | |
| In this unit you will learn about number and measures. The aims are as follows:  **LG1**: Knowledge **LG2**: Application **LG3**: Skills  Assessment Grades: | | | | | | |
|  | **Learning Goals/Outcomes/Content** | | Video clips | R A G |  |  |
| **4 Multiplicative reasoning: direct and inverse proportion, relating to graph form for direct, compound measures, repeated proportional change** | | | | | | |
| 1 | Express a multiplicative relationship between two quantities as a ratio or a fraction, e.g. when *A*:*B* are in the ratio 3:5, *A* is *B*. When 4*a* = 7*b*, then *a* =  or *a*:*b* is 7:4; | | 38, 107 |  |  |  |
| 2 | Solve proportion problems using the unitary method; | | 42 |  |  |  |
| 3 | Work out which product offers best value and consider rates of pay; | | 41 |  |  |  |
| 4 | Work out the multiplier for repeated proportional change as a single decimal number; | | 164 |  |  |  |
| 5 | Represent repeated proportional change using a multiplier raised to a power, use this to solve problems involving compound interest and depreciation; | | 164 |  |  |  |
| 6 | Understand and use compound measures and: | |  |  |  |  |
| 7 | convert between metric speed measures; | | 142a |  |  |  |
| 8 | convert between density measures; | | 142b |  |  |  |
| 9 | convert between pressure measures; | | 142c |  |  |  |
| 10 | Use kinematics formulae from the formulae sheet to calculate speed, acceleration, etc (with variables defined in the question); | | 136 |  |  |  |
| 11 | Calculate an unknown quantity from quantities that vary in direct or inverse proportion; | | 42 |  |  |  |
| 12 | Recognise when values are in direct proportion by reference to the graph form, and use a graph to find the value of *k* in *y* = *kx*; | | 199 |  |  |  |
| 13 | Set up and use equations to solve word and other problems involving direct proportion (this is covered in more detail in unit 19); | | 199 |  |  |  |
| 14 | Relate algebraic solutions to graphical representation of the equations; | | 199 |  |  |  |
| 15 | Recognise when values are in inverse proportion by reference to the graph form; | | 199 |  |  |  |
| 16 | Set up and use equations to solve word and other problems involving inverse proportion, and relate algebraic solutions to graphical representation of the equations. | | 199 |  |  |  |