

# Year 10 MATHS Revision – Hegarty Log – Higher Tier

As revision for your year 10 exams we would like you to select your own Hegarty tasks from those listed below. The list covers all Hegarty clips linked with what we have covered so far this year (plus assuming some prior knowledge)

For homework over the next 3 weeks you are expected to complete a minimum of 3 tasks per week from the list below, plus the Memri task.

If you prefer, you have the option to refresh lots of different tasks. If this is the case please write your score out of the number of questions answered rather than the percentage gained.

Every week complete a page in this booklet as follows:

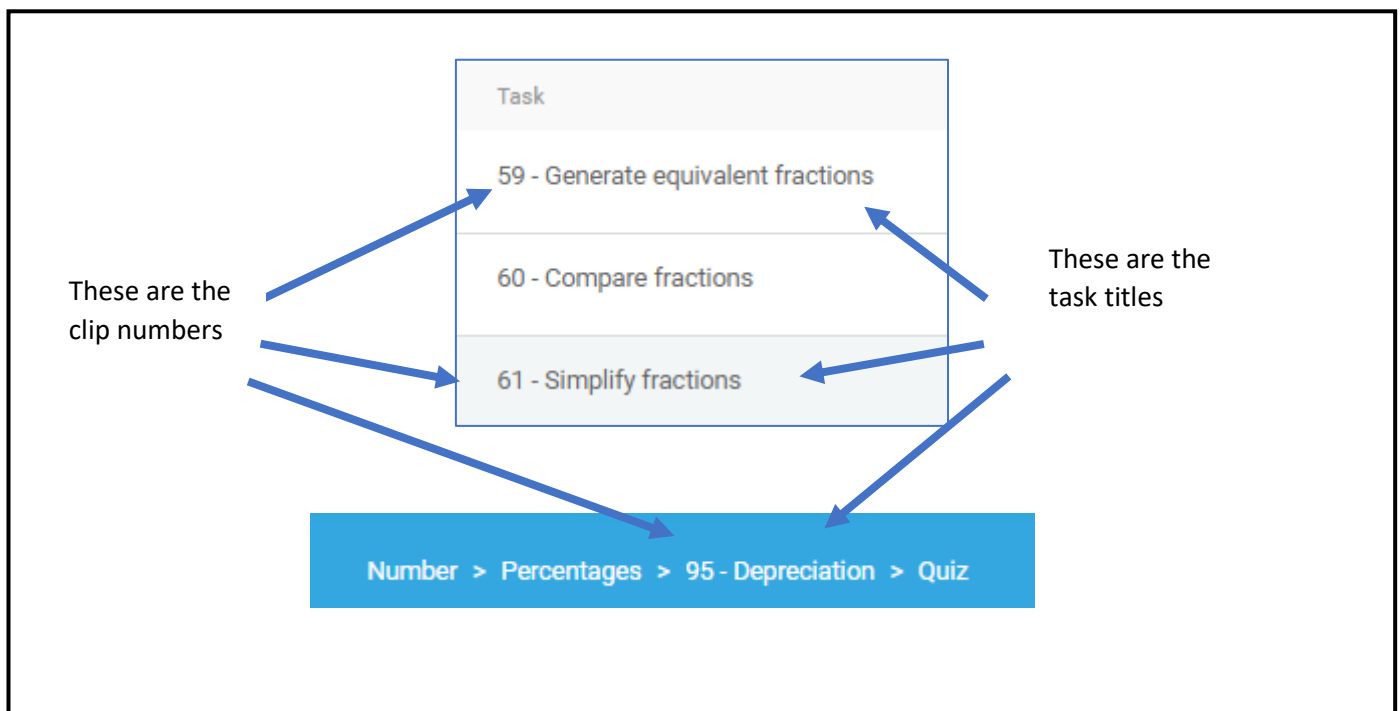
- write in the Hegarty task number (also called 'clip number'),
- write in the task title,
- put your score in the appropriate column:

**R: 0 to 70%**

**A: 70 to 95%**

**G: 95 to 100%**

- write in your Memri score.



**Week 1 (completed by end of 18<sup>th</sup> April)**

Clip number	Clip Title	Score			Memri Score
		R	A	G	

**Self-reflection:**

Give details of any topics which you struggled with or further topics revised.

**Week 2 (completed by end of 25<sup>th</sup> April)**

Clip number	Clip Title	Score			Memri Score
		R	A	G	

**Self-reflection:**

Give details of any topics which you struggled with or further topics revised.

**Week 3 (completed by end of 2<sup>nd</sup> May)**

Clip number	Clip Title	Score			Memri Score
		R	A	G	

**Self-reflection:**

Give details of any topics which you struggled with or further topics revised.

Log in to <https://hegartymaths.com/> to access videos and questions for topics covered so far this year

## Number

Topics	Clip Number	R	A	G
Calculating with roots and fractional indices	108, 109, 110			
Converting recurring decimals to fractions	53, 54			
Surds: Definition and estimating	111, 112			
Surds: Simplifying, multiplying and dividing	113, 114, 115			
Surds: Expanding brackets	116, 117			
Surds: Rationalising the denominator	118, 119			
Upper and lower bounds	137, 138, 139			
Error intervals	777			

## Algebra

Topics	Clip Number	R	A	G
Substitution	784, 785, 786, 787			
Substitution: Equations of motion	788, 789			
Expanding triple brackets	166			
Expressions with algebraic fractions	172			
Factorising quadratic expressions: $ax^2+bx+c$	225, 226, 227, 228			
Quadratic expressions: Algebraic fractions	229			
Quadratic expressions: Completing the square	235, 236, 237			
Quadratic equations: Factorising	231, 232, 233			
Quadratic equations: Quadratic formula	241, 242			
Quadratic equations: Completing the square	238, 239			
Quadratic equations in context	245			
Simultaneous equations: Quadratic/linear	246			
Manipulating powers	790, 791, 792, 793, 794, 795			
Equation of a straight line: Perpendicular lines	215, 216			
Quadratic graphs: Turning points and discriminant	256, 243, 258			
Quadratic inequalities	277			
Function notation	288, 289			
Domain and range of functions	290, 291, 292			
Composite functions	293, 294			
Inverse functions	295, 296			
Functions: Problem solving	297			
Other sequences: Recurrence relations	262			
Quadratic sequences	247, 248, 249, 250			
Iteration and numerical methods	322, 323			
Proof	324			

## Ratio, proportion and rates of change

Topics	Clip Number	R	A	G
Algebraic direct proportion	344, 345			
Algebraic inverse proportion	347			

## Geometry and measures

Topics	Clip Number	R	A	G
Compound units: Density problem solving	730, 732, 733			
Similar Shapes: Area	615, 616, 617			
Similar Shapes: Volume	618, 619, 620, 621			
Pythagoras' Theorem: Problem solving	503, 504			
Right-angled trigonometry: Non-calculator	306, 845, 846, 847, 848, 849, 850, 851, 852, 853			
Right-angled trigonometry: Problem solving	513, 514			
3D Pythagoras	505, 506, 507			
Sine rule for area	517, 518, 519			
Sine rule	521, 522, 523, 524, 525			
Cosine rule	527, 528, 529, 530			
Non-right-angled trigonometry: Problem solving	532, 533			

## Statistics

Topics	Clip Number	R	A	G
Quartiles and interquartile range	411, 412			
Mean from grouped frequency tables	418			
Averages problems	421			
Cumulative frequency diagrams	437, 438, 439			
Box plots	434, 435, 436, 440			
Frequency polygons	441			
Histograms	442, 443, 444, 445, 446, 447, 448, 449			

### Other good revision sites include:

<https://corbettmaths.com/5-a-day/>

<https://www.mathsgenie.co.uk/gcse.html>

<https://www.onmaths.com/>