How to revise for GCSE Mathematics

Follow us on Twitter @CamsMaths for good questions to support revision, key dates, sharing resources and top tips.

NUMΣR4CY

Notes for the slides

1 - New Twitter account for Maths Dept. Please follow us – pupils and parents for reasons on slide.

4 - All recommended websites. We can measure useage on Mathswatch, Pixl Maths App and Seneca Learning. On Maths – includes practice papers which will give you a running total of marks, which help build confidence to next grade. Gojimo – free app with 5Q quizzes – best way to revise Maths is little and often. Maths Genie has past papers. Corbett Maths also very good.

7 - Examples of pupils' revision – completing checklist, look up Mathswatch clips, practice at target topics. Other ways pupils revise – Corbett Maths postcards

8 - Different examples as pupils revise in different ways but we share these in class, as it may help less reluctant pupils find a way that works for them. Post-it notes around the house can also help.

9 - Some sheets handed in (for evidence of time doing hw revision) have been sparse but as long as evidence is available in other forms – time on Mathswatch, practice papers, progress in test scores – we don't mind.

10 - We like to celebrate success by picking out individuals for specific questions and skills they have got right.

13 - Top scores in a class are also celebrated, as well as progress from the previous week! Some staff put this to pop chart countdown music!

14 - Staff make notes whilst marking papers, so they can celebrate the successes and identify key errors and topics that need revisiting in either whole class revision or small group intervention.

Notes for the slides continued

15 - Records of data kept to monitor progress and deal with any concerns. The RAG-ing of topics is also done with the sets of Mock papers and pupils/parents receive copies of these after each round of mocks.

16 - Staff can track time spent on Mathswatch. This is a first port of call for pupils who are underperforming on tests and have not been spending time on this site.

17 - One member of staff noticed that those who had been on Mathswatch were coming up around 5 marks higher the next week. Others had actually gone down, partly due to a harder paper but not helped by not submitting any evidence of revising.

18 - Pros and cons here. The peaks correspond to the night before the tests! Pupils will perform better over time if they spend around 20 mins per night revising Maths rather than bulk revision close to the exam, where it is less likely to stick.

19 - Staff can see exactly how much time each pupil is spending on Mathswatch, down to which videos they have watched, etc.

20 - Data for Year 11 during February.

21 - Pupils have revision sheets like this example to support their revision for the Mocks in March. Some topics they already know, so have been advised to make the revision worthwhile by focusing on the “Red” topics. These lists are not absolutely everything (a full list is available on Mathswatch) but we have picked out common topics that always seem to come up and if they know all these skills well, they are giving themselves the best chance of securing their target grade or better!

Useful websites:

- Mathswatch
  https://vle.mathswatch.co.uk/vle/
- Pixl Maths App
  https://mathsapp.pixl.org.uk/PMA2.html
- Maths Genie

https://www.mathsgenie.co.uk/

- On Maths

https://www.onmaths.com/

- Seneca Learning
  https://app.senecalearning.com
- Gojimo App

New initiative:

Weekly past paper done in test conditions every Friday.

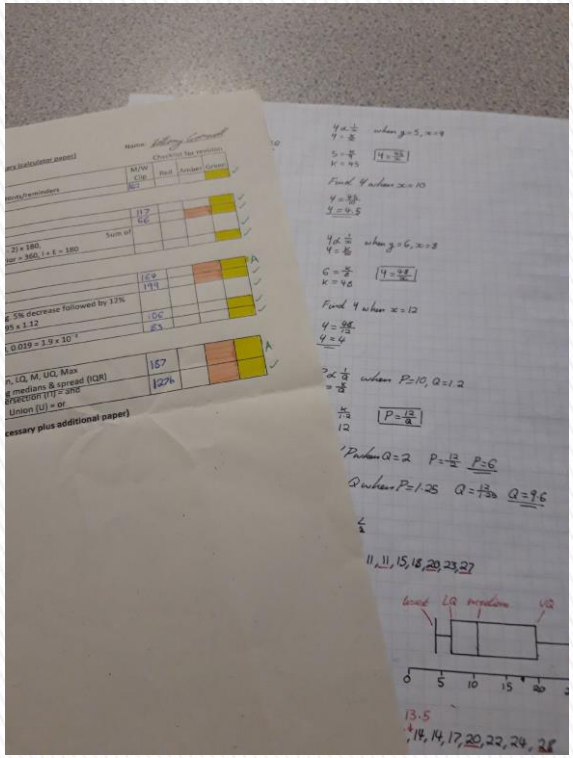
50-55 minute tests with focus on improving skills in first half of the paper but with other multi-step questions available to stretch and challenge those who need it.

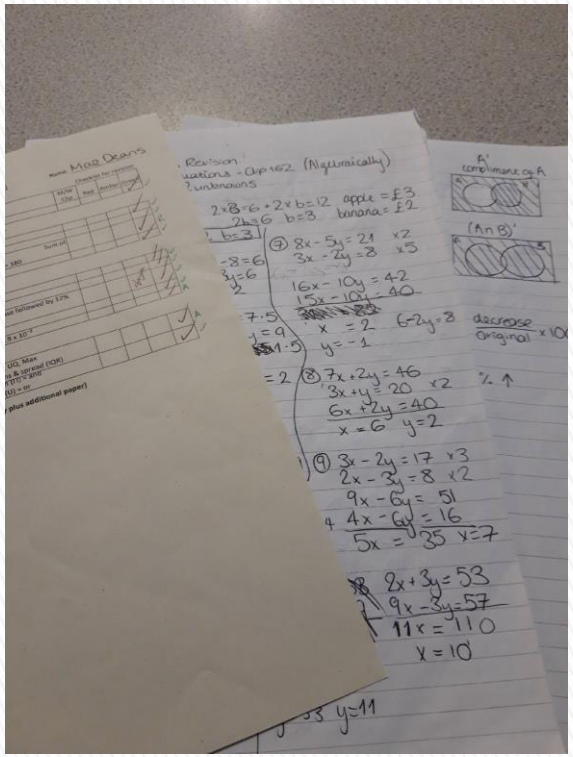
We provide loads of resources in the build up to the final exams and decided we need to start modelling these activities now, to ensure the pupils are ready for same format later.

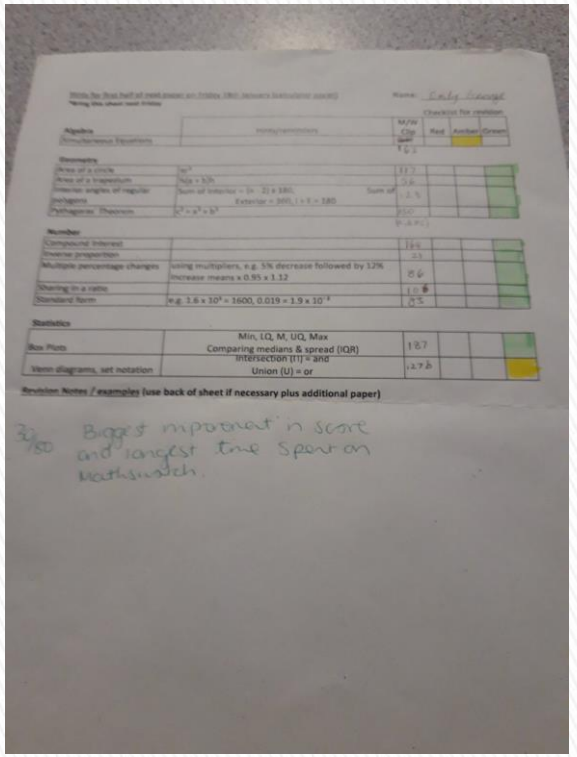
Testing

- Support for tests – revision sheet devised with key skills listed in sections in alphabetical order, with hints/reminders of key info, errors to avoid, etc.
- Space given for pupils to look up and use Mathswatch clips, RAG their understanding and write notes.

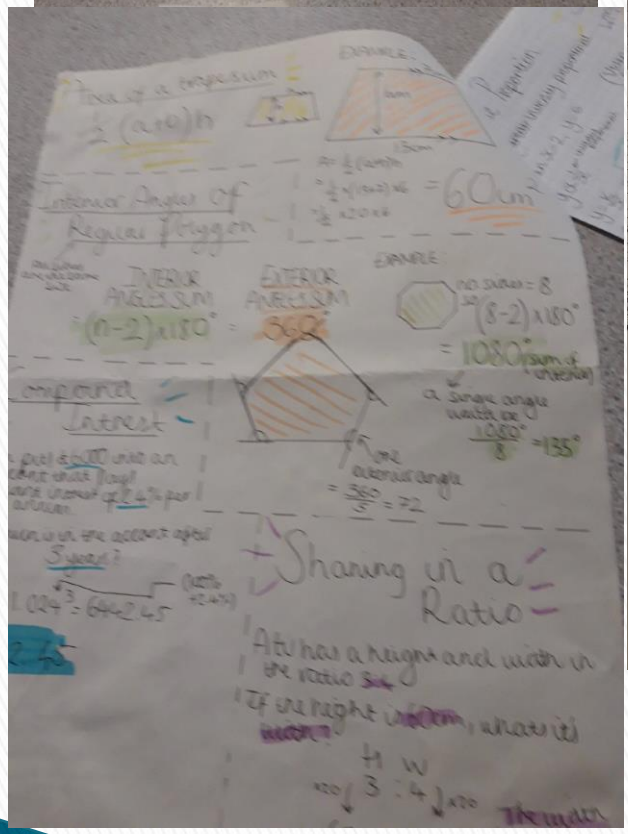
Results and feedback – sharing good practice

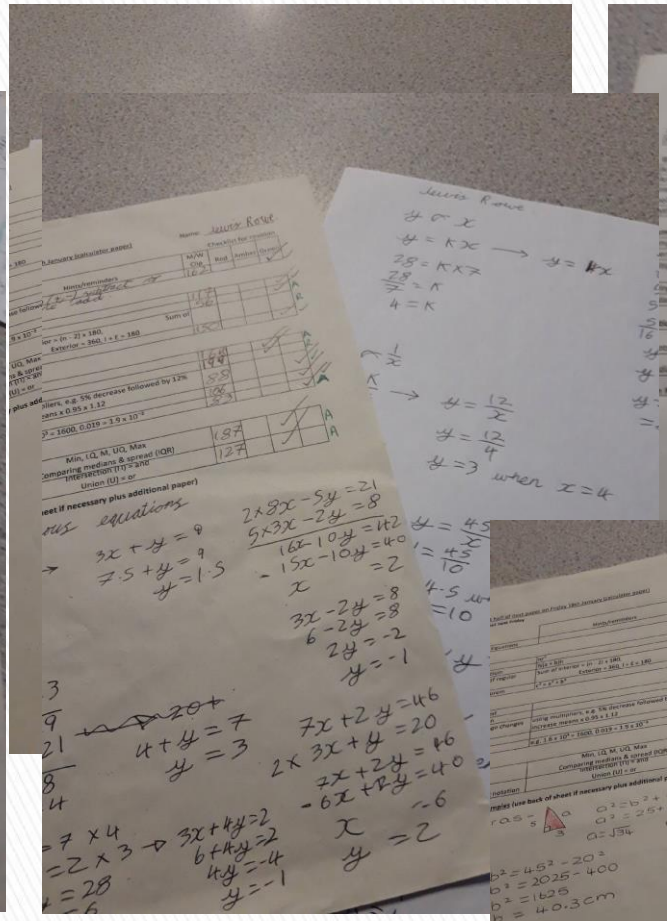


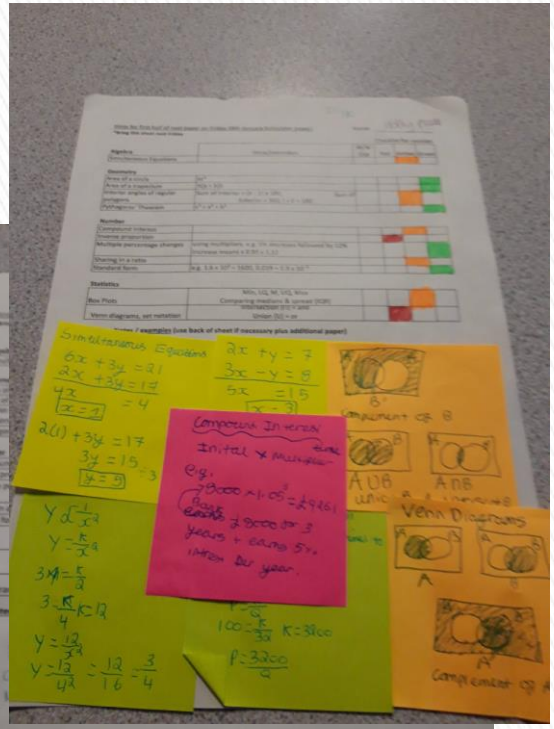


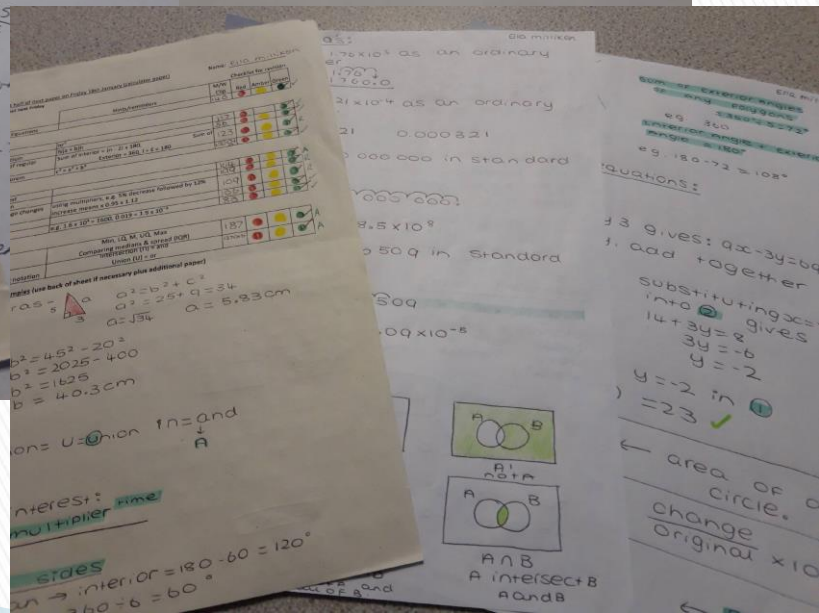


Results and feedback – sharing good practice

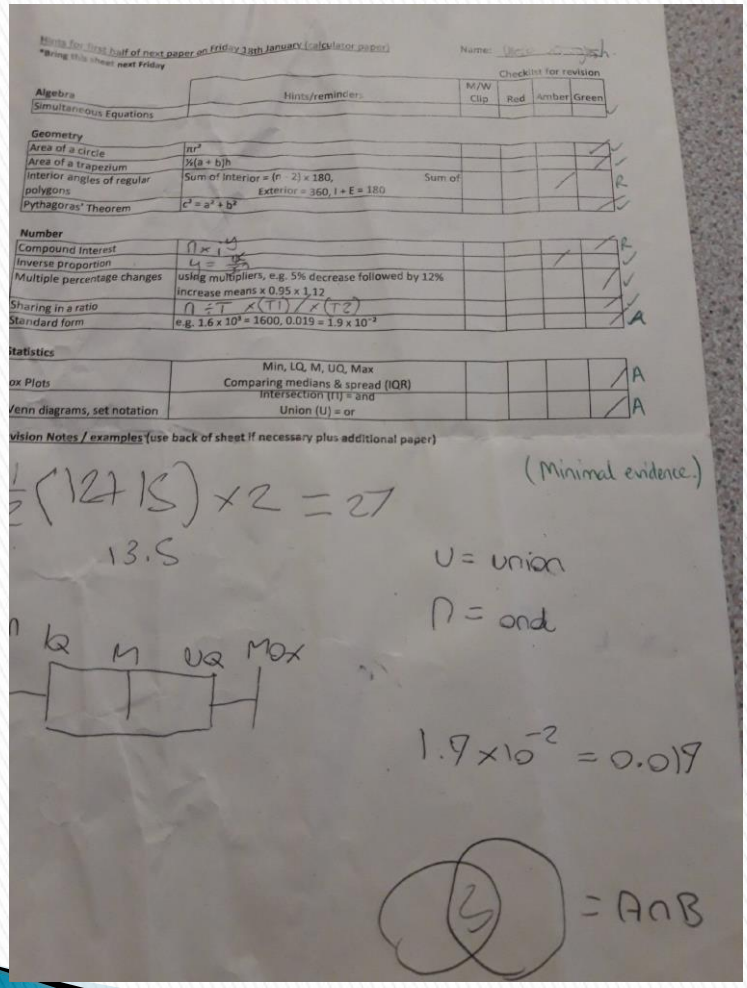


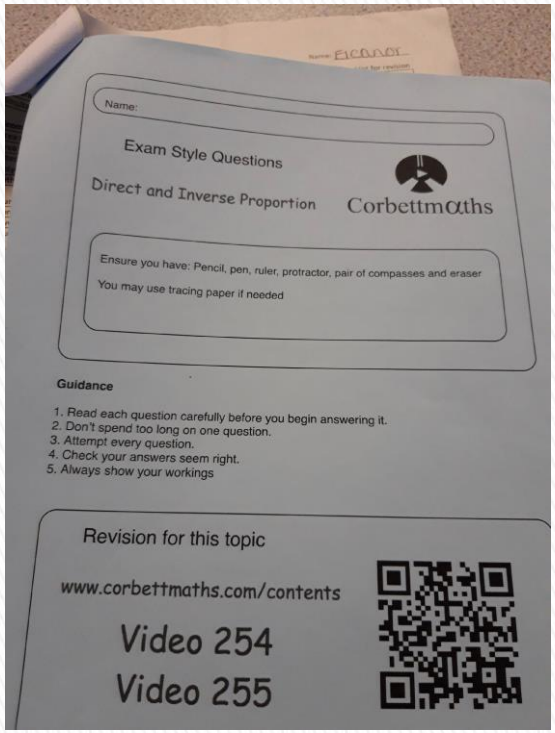






Results and feedback – sharing good practice





CELEBRATE THE SUCCESSES

Jaydn – always puts the brackets in factorising!, Q9, Q11-13, Surface area, VECTORS and TRIG!!

Adele – Q5, factorising – yes!, Q9, Q11 and correct with simple interest!

Mollie – Q10, full marks on stem and leaf!, Q12 scale drawing and excellent number problems (Q13&15)

CELEBRATE THE SUCCESSES

Brad– Q7 correct, Q18 (2/3 marks) and one of only 2 people to get Q20 correct

Daisy – Q2, Q4, Q8 (2/3 marks), Q9 and Q13 fully correct and……

BEAT PREVIOUS SET OF PAPERS BY 12 MARKS!!!!!

Ben T – Q1 (one of only 2 people!), Q4 and Q5 fully correct

Ben H– one of only six to get Q13a fully correct!

CELEBRATE THE SUCCESSES

Lara– Q1, Q13 fully correct!

Henry – Q7 full marks, Q11 (3 marks), Q18 correct… (only one in the class!)

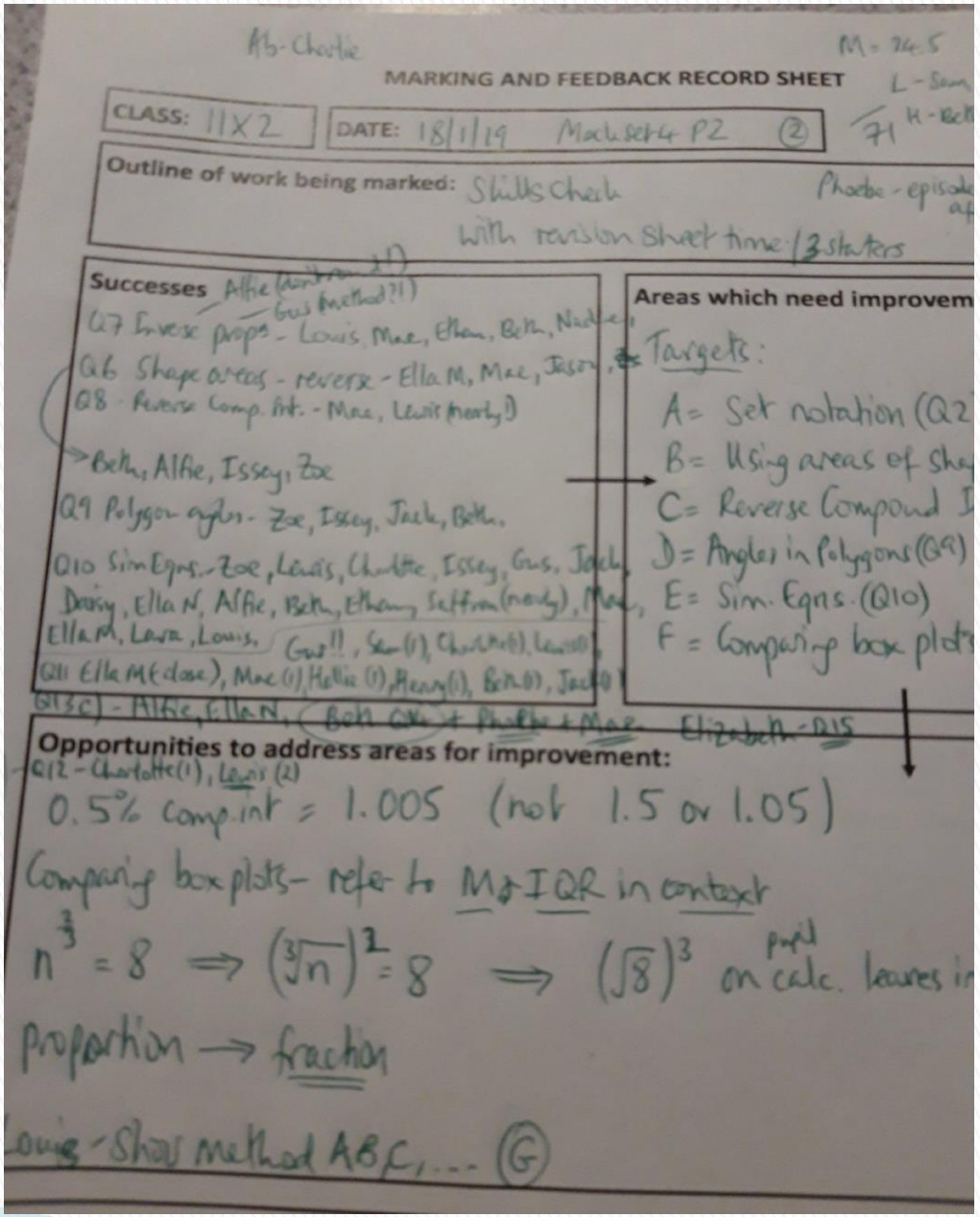
Lewis – Q1, Q5 (1 of only 4 people!), Q7, Q9 fully correct!

Alfie – Q2 (1 of only 5 people!) and Q11 (2 marks),

Results and Feedback – top scores!

Session 3	Yellow		
This week	Last time	Name	Total marks

Results and Feedback – Celebrating success!



Ab-Charlie

MARKING AND FEEDBACK RECORD SHEET

CLASS: 11X2 | DATE: 18/1/19 Mock set 4 P2 (2) | /71

Outline of work being marked: Skills check with revision sheet time: /3 starters

Successes

Q7 Inverse props - Louis, Mae, Ethan, Beth, Nadia,

Q6 Shape areas - reverse - Ella M, Mae, Jason,

Q8 - Reverse Comp. Int. - Mae, Lewis (nearly!)

Beth, Alfie, Issey, Zoe

Q9 Polygon angles - Zoe, Issey, Jack, Beth,

Q10 Sim Eqns - Zoe, Louis, Charlie, Issey, Gus, Jack, Daisy, Ella N, Alfie, Beth, Ethan, Saffron (nearly), Mae, Ella M, Lara, Louis,

Q11 Ella M (close), Mae (1), Hollie (1), Macy (1), Beth (1), Jack

Areas which need improvem

Targets:

A = Set notation (Q2

B = Using areas of sha

C = Reverse Compound I

D = Angles in Polygons (Q9)

E = Sim. Eqns. (Q10)

F = Comparing box plots

Opportunities to address areas for improvement:

Q12 - Charlotte (1), Lewis (2)

0.5% comp. int = 1.005 (not 1.5 or 1.05)

Comparing box plots - refer to M & IQR in context

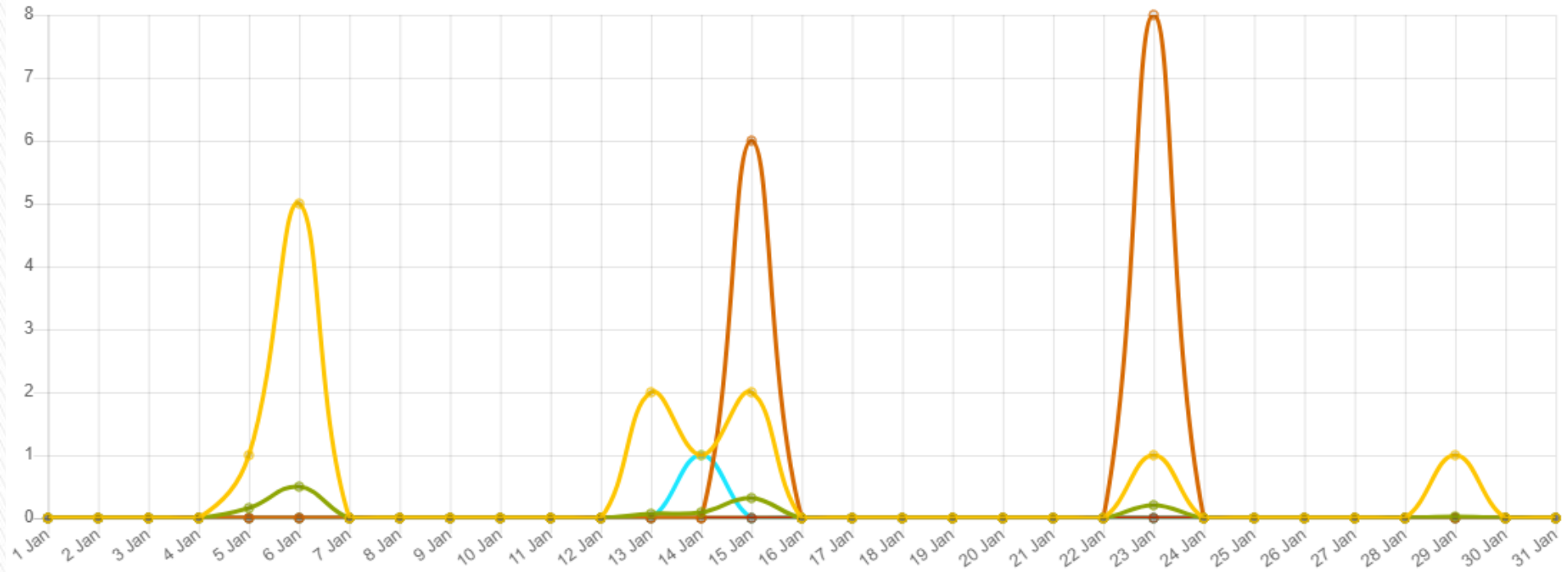
$n^{\frac{3}{3}} = 8 \Rightarrow (\sqrt[3]{n})^2 = 8 \Rightarrow (\sqrt{8})^3$ on calc. leaves in

proportion → fraction

Louis - show method ABC, ... (G)

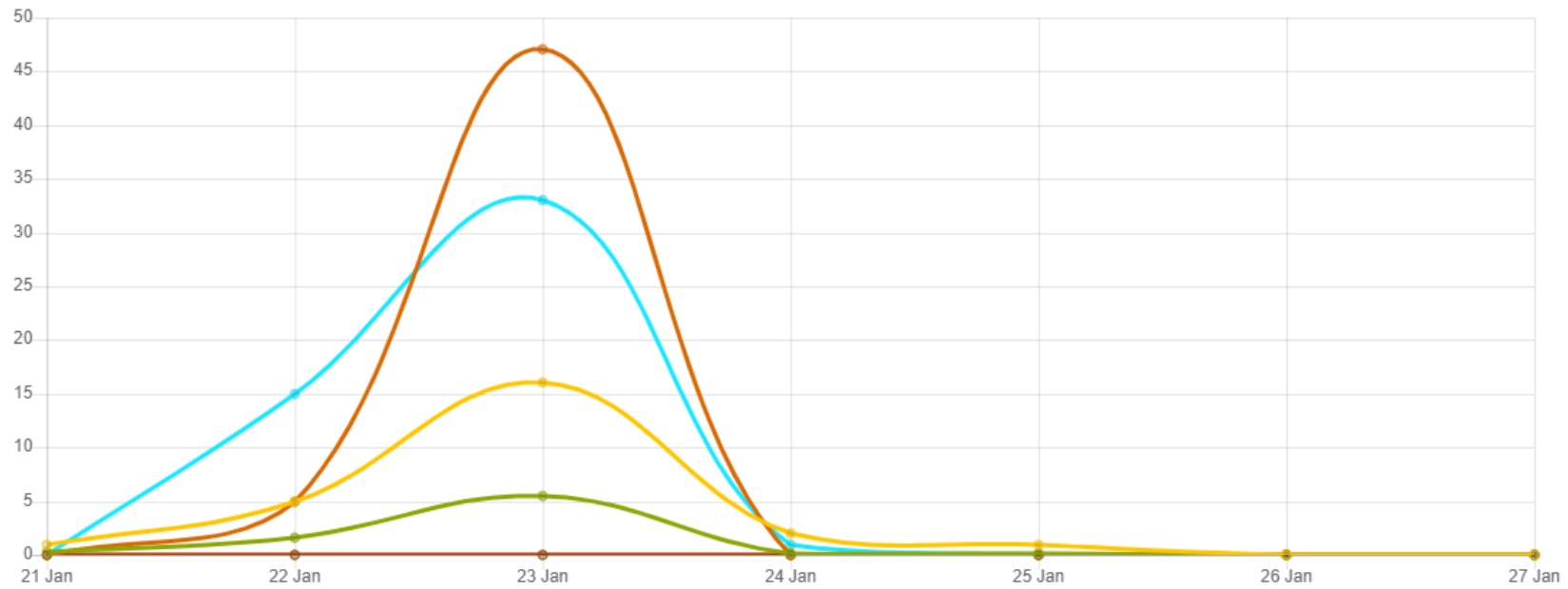
Results and Feedback

Number of Greens	Average test Score	P1 Total marks - no RAG	Simultaneous Equations	Area of a circle	Area of a trapezium	Interior angles of regular polygons	Pythagoras' Theorem	Compound Interest	Inverse proportion	Multiple percentage changes	Sharing in a ratio	Standard form	Box Plots	Venn diagrams, set notation	P2 Total marks	Minutes spent on Mathswatch
4	26	27	g	r	a	r	g	r	r	g	g	a	a	a	25	0
4	27	29	a	g	g	a	g	r	a	a	g	a	a	a	24	32
6	26	25	g	r	a	r	g	r	g	g	g	g	a	a	27	63
5	24	25	g	r	r	r	g	r	g	g	g	a	a	a	22	2
5	30	34	a	g	a	r	g	r	a	g	g	g	a	a	25	16
5	21	21	r	g	a	r	a	a	r	g	g	g	a	g	20	0
10	36	30	g	g	g	g	g	a	g	g	g	g	a	g	41	47
9	35	33	g	g	g	r	g	g	g	g	g	a	a	g	36	78



13	1.4	14	0	1	0
Total Logins	Hours Spent	Practice Questions Attempted	Assignment Questions Attempted	Videos Watched	Assignments Due

Week 2



25	7.5	52	0	49	0
Total Logins	Hours Spent	Practice Questions Attempted	Assignment Questions Attempted	Videos Watched	Assignments Due

Paper 2 Average = 24

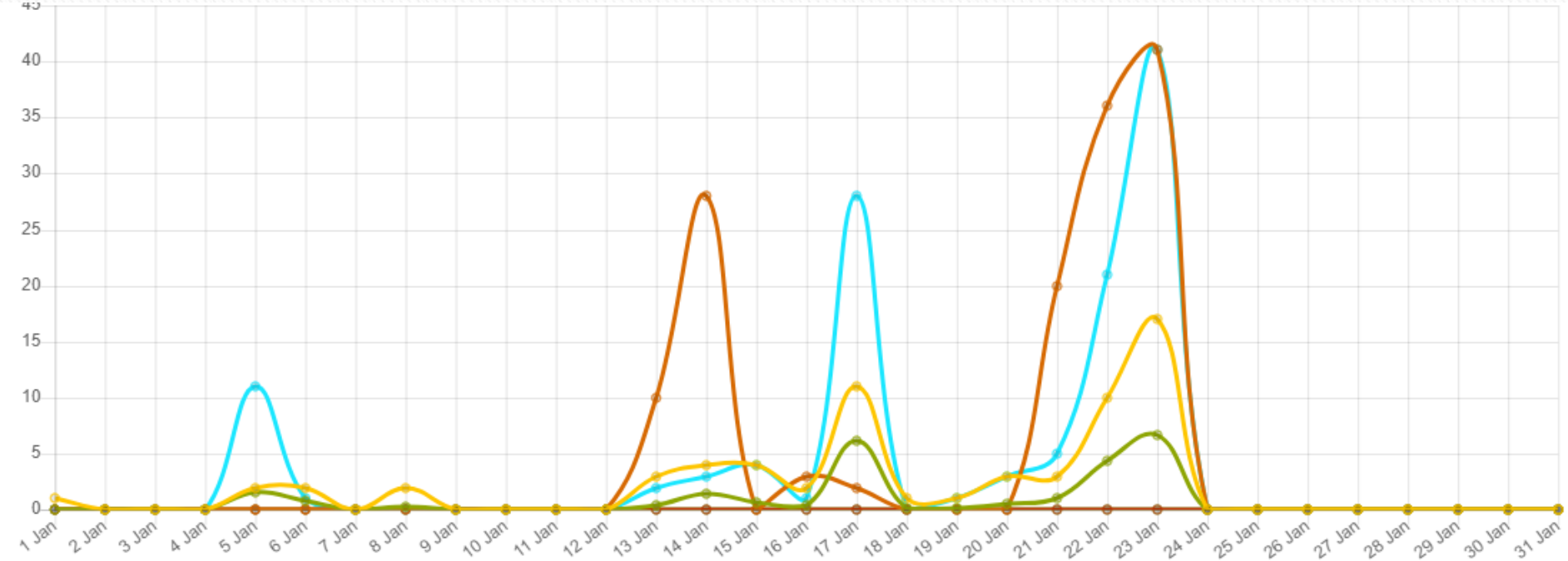
Paper 3 Average = 26.5

Average = +4.5 marks

Average = + 2.3 marks

Average = - 3.2 marks

Mathswatch usage

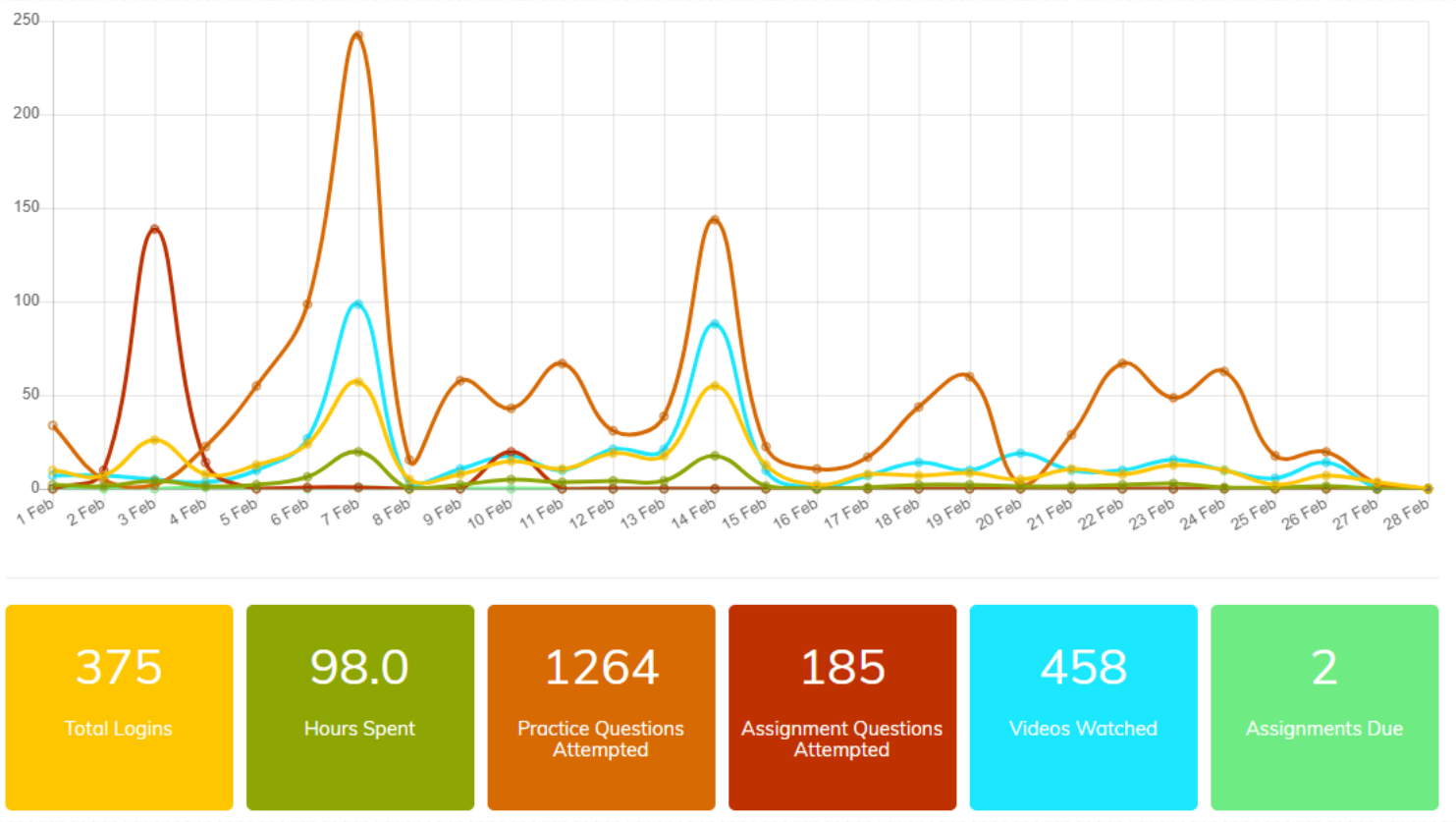


66	25.1	140	0	121	0
Total Logins	Hours Spent	Practice Questions Attempted	Assignment Questions Attempted	Videos Watched	Assignments Due

Mathswatch usage

Logins	Minutes Spent	Practice Questions	Assignment Questions	Videos
8	176	61	0	14
7	175	0	0	14
2	162	0	0	16
3	146	22	0	13
4	113	0	0	8
2	95	0	0	5
3	89	2	0	9
4	82	0	0	8
5	80	0	0	5
3	70	0	0	8
3	69	31	0	1
6	59	0	0	3
4	49	0	0	3
3	33	0	0	5
2	32	9	0	3

Year 11 activity on Mathswatch during February



Top 10 Year 11 users who are present tonight:

Cams Hill's Top Topics (Higher)

Data Handling	MW	R	A	G	**Number and Algebra**	MW	R	A	G
1.Stem-and-Leaf	128b				28. Index notation and index laws, reciprocals	29, 76, 82, 131, 154, 188			
2.Two Way table inc. text questions	61				29. Standard Form	83			
3. Frequency polygon	65b				30. BIDMAS, negatives, long multiplication and division	19, 20, 68, 75			
4. Scatter Graphs	129				31. Prime Factors, product of primes, HCF & LCM	28, 78-80			
5. Averages – grouped table	130				32. Error intervals	132, 155			
6. Stratified Sampling	176				33. Estimation	90-1			
7. Tree Diagrams	151, 175, 204				34. Forming expressions/equations, solving linear equations	135, 137			
8. Probability with Venn diagrams	127, 185				35. Inequalities	138-9, 198			
9. Cumulative Frequency	186				36. Direct and inverse proportion	199			
10. Boxplots	187				37. Equation of a circle	197			
Shape, Space and Measure					38. Iterative processes	180			
11. Loci / Constructions	145-7, 165				39. Fractions – 4 operations	70-4			
12. Basic vectors	174				40. Linear and geometric sequences, nth term	102-3, 163			
13. Reflections, rotations, translations	48-50				41. Quadratic sequences	213			
14. Enlargements	148, 181				42. Simplifying expressions, substitution, factorising	33-35, 94, 95			