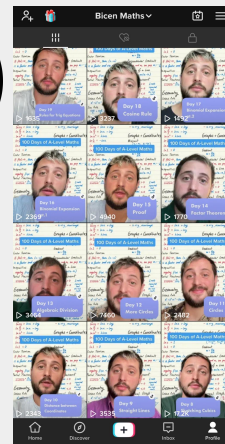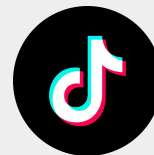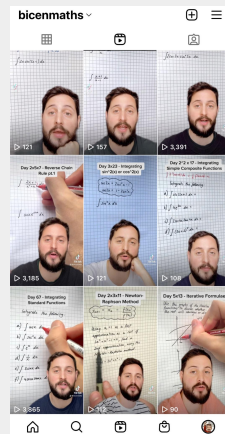How to use these files:

- **Links to videos**: this will take you the BicenMaths short videos on Instagram (also on TikTok) revising quick bits of content

- **Practice Questions from videos**: print this out/download and follow along with the videos

100 Days of A Level Maths

Week 1

Days 1 – 7

Day 1

Express y in terms of x:

$$2^y \times 8^x = \frac{1}{2\sqrt{2}}$$

Day 2

Simplify:

$$\sqrt{20} + 2\sqrt{45} - \sqrt{80}$$

Day 3

Solve:

$$x^6 + 9x^3 + 8 = 0$$

- **Quiz Yourself!** Try questions similar to the video, but with differences - different numbers, functions, etc.

- **Quiz Yourself! Mark scheme** - check if you've got them right.

A huge thank you to Ms Cartwright, Head of Maths at Exeter School @MrsEVCartwright

100 Days of A Level Maths

Week 1 QUIZ

Days 1 – 7

Day 1

Express y in terms of x:

$$3^{2y} \times 27^x = \frac{1}{9\sqrt{3}}$$

Day 2

Simplify:

$$\sqrt{28} - 3\sqrt{63} - \sqrt{175}$$

Day 3

Solve:

$$x^4 - x^2 - 6 =$$

100 Days of A Level Maths – WEEK 1

Day 1

$$3^{2y} \times 3^{3x} = \frac{1}{3^2 \times 3^{1/2}}$$

$$3^{2y+3x} = 3^{-5/2}$$

$$2y + 3x = \frac{-5}{2}$$

$$2y = \frac{-5}{2} - 3x$$

$$y = \frac{-5}{4} - \frac{3}{2}x$$

[4]

Day 2

$$\sqrt{4}\sqrt{7} - 3\sqrt{9}\sqrt{7} - \sqrt{25}\sqrt{7}$$

$$= 2\sqrt{7} - 9\sqrt{7} - 5\sqrt{7}$$

$$= -12\sqrt{7}$$

[2]

Day 3

Let $y = x^2$

$$y^2 - y - 6 = 0$$

$$(y - 3)(y + 2) = 0$$

$$y = 3 \quad \text{or} \quad y = -2$$

$$x^2 = 3 \qquad x^2 = -2$$

$$x = \pm\sqrt{3} \qquad \text{no solutions}$$

[5]