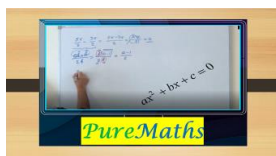


Year 12 Mathematical Methods 3 & 4 – Video Content

Unit 3



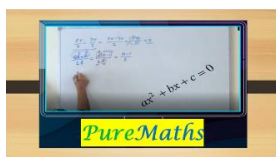
31 videos – 45 hours

Unit 3 contains the following chapters:

- **Functions, Relations and Transformations of Graphs – Part One** (6 videos, 9.7 hours)
- **Functions, Relations and Transformations of Graphs – Part Two** (8 videos, 10.6 h)
- **Exponential & Logarithmic Equations & Graphs** (6 videos, 9.5 hours)
- **Trigonometry – Part One** (6 videos, 8.2 h)
- **Trigonometry – Part Two** (5 videos, 7 h)

Content of each chapter is given below.

Functions, Relations and Transformations of Graphs – Part One



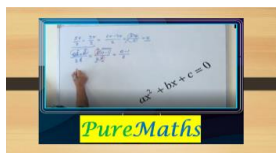
6 videos – 9.7 hours

Session 1 - **Functions and Relations - Definitions. Terminology. Concepts. Worked examples** (2 videos. Part 1 – 1.5 hours and Part 2 – 1.9 hours)

Session 2 - **Transformation of Graphs.** (2 videos. Part 1 – 1.5 hours and Part 2 – 1.9 h)

Session 3 - **Transformation of graphs - Study examples.** (2 videos. Part 1 – 1.6 hours and Part 2 – 1.3 hours)

Functions, Relations and Transformations of Graphs – Part Two



8 videos – 10.6 hours

Session 4 - **Even and odd function. Sum and product of function. Composite and absolute value functions. Examples** (2 videos. Part 1 – 1.1 h & Part 2 – 1.1 h)

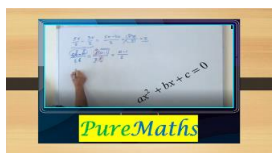
Session 5 - **Functions and Relations. Study Examples** (2 vid. Part 1 – 1.1h, Part 2 – 1.2 h)

Session 6 - **Functions and Relations - Exam Style Questions.** (1 video – 2 hours)

Session 7 - **Functions and Relations - SAC and Exam Style Questions.** (1 video – 2.1 h)

Session 8 - **Functions and Binomial Theorem - SAC and Exam Questions.** (2 videos. Part 1 – 0.8 hours and Part 2 – 1.2 hours).

Exponential and Logarithmic Equations and Graphs



6 videos – 9.5 hours

Session 9 - **Exp. and Log. Equations - Concepts. Examples.** (1 video – 2 hours)

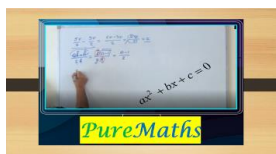
Session 10 - **Exp and Log Functions - Concepts and Study Questions.** (2 videos. Part 1 – 1.2 hours and Part 2 – 1.6 hours).

Session 11 - **Exp. and Log. Equations and Functions - Study Questions.** (1 video – 1.7 h)

Session 12 - **Exp. and Log Equations and Functions - SAC and Exam style questions.** (1 video – 1.6 hours)

Session 13 - **Exp and Log Equations and Functions - Further Exam Style Questions** (1 video – 1.4 hours)

Trigonometry – Part One



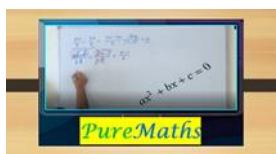
6 videos – 8.2 hours

Session 14 - **Trigonometry - Unit circle. Exact Values. Graphs.** (2 videos. Part 1 – 1.6 hours and Part 2 – 1.6 hours).

Session 15 - **Trigonometric Equations - Concepts and Examples.** (2 videos. Part 1 – 1.5 hours and Part 2 – 1 hours).

Session 16 - **Trigonometry - Practice 1.** (2 videos. Part 1 – 1.2 hours and Part 2 – 1.3 h).

Trigonometry – Part Two



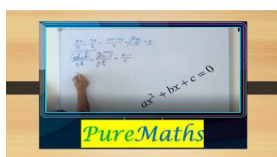
5 videos – 7 hours

Session 17 - **Trigonometry - Practice 2** (2 videos. Part 1 – 1.6 hours and Part 2 – 1.4 h).

Session 18 - **Trigonometry. Exam Style Questions** (2 video. Part 1 – 1.1 h, Part 2 – 1.1 h).

Session 19 - **Trigonometry - More Exam Style Questions.** (1 vide – 1.8 hours)

Unit 4



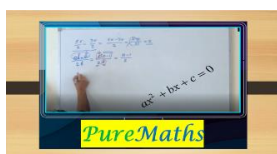
32 videos – 43.5 hours

Unit 4 contains the following chapters:

- **Differentiation** (6 videos, 8.1 h)
- **Application of Differentiation - Part One** (9 videos, 12.1 hours)
- **Application of Differentiation – Part Two** (6 videos, 8.7 h)
- **Integration and Application of Integration – Part One** (5 videos, 6.1 h)
- **Integration and Application of Integration – Part Two** (6 vid. 8.5 h)

Content of each chapter is given below.

Differentiation



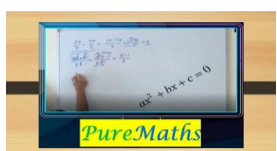
6 videos – 8.1 hours

Session 20 - **Differentiation - Rules, Concepts and Example** (1 video – 1.6 hours)

Session 21 - **Differentiation - Practice 1** (3 videos: Part 1- 1.2h, Part 2 – 1.1h and Part 3 – 1.4h)

Session 22 - **Differentiation - Practice 2** (2 videos. Part 1 – 1.6h, Part 2 – 1.2h)

Application of Differentiation. Part One



9 videos – 12.1 hours

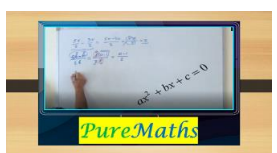
Session 23 - **Application of Differentiation - Theory, Concepts and Examples.** (2 videos. Part 1 – 1.1 h and Part 2 – 1.5 h)

Session 24 - **Application of Differentiation - Practice 1** (2 videos. Part 1 – 1.4 h and Part 2 – 1.6 h)

Session 25 - **Application of Differentiation - Practice 2** (2 videos. Part 1 – 1.2 h and Part 2 – 1.6 h)

Session 26 - **Application of Differentiation - Practice 3** (3 videos. Part 1 – 1.3 h, Part 2 – 1.2 h and Part 3 – 1.2 h)

Application of Differentiation. Part Two



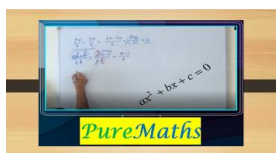
6 videos – 8.7 hours

Session 27 – **Application of Differentiation. Exam Style Questions.** (2 videos. Part 1 – 1.6 h and Part 2 – 1.3 h)

Session 28 - **Application of Differentiation - Exam Questions Practice 1.** (2 videos. Part 1- 1.6 h and Part 2 – 1.8)

Session 29 - **Application of Differentiation - Exam Questions Practice 2.** (2 videos. Part 1 – 1.0 h and Part 2 – 1.4h)

Integration and Application of Integration. Part One



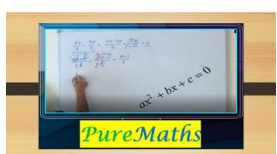
5 videos – 6.1 hours

Session 30 - **Integration. Theory and Examples.** (2 videos. Part 1 – 1.2 h, Part 2 – 1.1 h)

Session 31 - **Integration - Practice 1.** (1 video - 1.6 h)

Session 32 - **Integration - Practice 2.** (2 videos. Part 1 – 1.0 h and Part 2 – 1.2h)

Integration and Application of Integration. Part Two



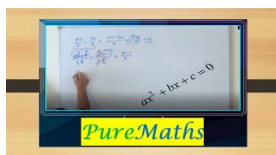
6 videos – 8.5 hours

Session 33 - **Application of Integration. Study Examples.** (2 videos. Part 1 – 1.5 h and Part 2 – 1.5h)

Session 34 - **Application of Integration. Exam Style Questions.** (2 videos. Part 1 – 1.7 h and Part 2 – 1.6 h)

Session 35 - **Application of Integration. Further Exam Style Questions.** (2 videos. Part 1 – 1.0 h and Part 2 – 1.2 h)

Final Exam Preparation and Revision



14 videos – 20 hours

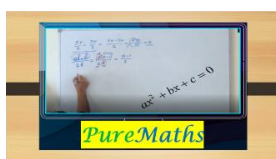
Final Exam Preparation contains the following two original past examination papers:

- **2016 Examination Paper.** (6 videos, 8.4 hours)
- **2017 Examination paper.** (8 videos, 11.6 hours)

While all questions are fully worked out and all examination requirements explained, at the same time, questions are, also, used for detailed revision of the subject as questions from both papers cover all topics and concepts required by school curriculum.

Content of each paper is given below.

2016 Examination Paper



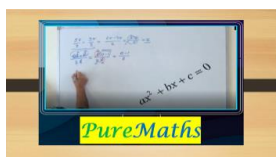
6 videos – 8.4 hours

Examination 1 (1 video, 1.9 hours)

Examination 2 – Section A (1 video, 1.7 hours)

Examination 2 – Section B (4 videos. Part 1 – 0.9 h, Part 2 – 1.2 h, Part 3 – 1 h and Part 4 – 1.7h)

2017 Examination Paper



8 videos – 11.6 hours

Examination 1 (2 videos, Part 1 – 1.5 h and Part 2 – 1.2 h)

Examination 2 – Section A (2 videos, Part 1 – 1.7 h and Part 2 – 1.2 h)

Examination 2 – Section B (4 videos. Part 1 – 1.4 h, Part 2 – 1.5 h, Part 3 – 1.7 h and Part 4 – 1.4h)