

MathsSense

Mathematics Programme

The MathsSense Mathematics Programme consists of video lessons with exercises for each lesson. The video lessons are supplied on a USB drive with the exercises and solutions available in hard copy. An online digital version of the programme is also available (visit www.MathsSense.co.za for further information).

The MathsSense Mathematics Programme has been developed as a foundational high school mathematics course. It is well-aligned with the South African mathematics curriculum with respect to content and content progression.

The MathsSense Mathematics Programme has been created to support students' development of a deep understanding of mathematics. The focus of the programme and the approach adopted in the materials is on developing mathematical knowledge with understanding so that students can apply their knowledge with confidence in unfamiliar situations and across different mathematical topics.

Throughout the programme, the underlying objective is to support students to develop reasoning skills. Reasoning skills are foundational to learning and doing mathematics. More generally, reasoning skills are important for creating, learning and using knowledge. As a critical life skill, reasoning involves generating claims or evaluating claims based on the available verifiable data and facts. It involves not taking one's own or others' assumptions, contentions



or feelings at face value. It also involves recognising inconsistencies and errors in arguments.

The ability to reason affects the ability to learn from new information and experiences since reasoning determines how one does or does not comprehend, evaluate and accept claims and arguments. Reasoning is at the heart of solving problems and making well-informed decisions.

The MathsSense Mathematics Programme can be used as:

- A comprehensive mathematics teaching and learning programme for independent study.
- A school-based mathematics programme where students watch the video lessons, and teachers lead reflective discussions on the video lessons and provide support to students with the exercises.
- Learning support to students who need additional support or resources to make progress in their study of mathematics.

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NOTE: The MathsSense Mathematics Programme is a five-year foundational high school mathematics course. For ease of distribution, it is packaged by Grade (Grades 8 to 12). In the contents for each Grade, units may be numbered, e.g. *Theorem of Pythagoras I*. The numbering signals that there are other units dealing with the same topic in the five-year programme. Please note that the other units may not be in the same Grade. They could appear in an earlier Grade or in a later Grade.

