Mathematics SL
Assessment objectives

For use during the course and in the examinations

First examinations 2014

Assessment objectives

Problem-solving is central to learning mathematics and involves the acquisition of mathematical skills and concepts in a wide range of situations, including non-routine, open-ended and real-world problems. Having followed a DP mathematics SL course, students will be expected to demonstrate the following.

1. **Knowledge and understanding**: recall, select and use their knowledge of mathematical facts, concepts and techniques in a variety of familiar and unfamiliar contexts.

2. **Problem-solving**: recall, select and use their knowledge of mathematical skills, results and models in both real and abstract contexts to solve problems.

3. **Communication and interpretation**: transform common realistic contexts into mathematics; comment on the context; sketch or draw mathematical diagrams, graphs or constructions both on paper and using technology; record methods, solutions and conclusions using standardized notation.

4. **Technology**: use technology, accurately, appropriately and efficiently both to explore new ideas and to solve problems.

5. **Reasoning**: construct mathematical arguments through use of precise statements, logical deduction and inference and by the manipulation of mathematical expressions.

6. **Inquiry approaches**: investigate unfamiliar situations, both abstract and real-world, involving organizing and analyzing information, making conjectures, drawing conclusions, and testing their validity.

Assessment objectives in practice

Assessment objectives	Paper 1 %	Paper 2 %	Exploration %	Overall %
Knowledge and understanding	20 – 30	15 – 25	7 – 13	15 – 25
Problem-solving	20 – 30	15 – 25	11 – 19	15 – 25
Communication and interpretation	20 – 30	15 – 25	15 – 25	15 – 25
Technology	0	25 – 35	3 – 7	10 – 20
Reasoning	7 – 13	3 – 7	15 – 25	5 – 15
Inquiry approaches	11 – 19	3 – 7	25 – 35	10 – 20