

# IB Math Internal Assessment (IA) Help

## 1. What is the IB Math Internal Assessment (IA)?

The **IB Math IA** is an independent exploration where students apply mathematical concepts to a topic of interest. It is worth **20% of the final IB Math grade** and is assessed based on criteria set by the **IB Diploma Program (IBDP)**.

### ☒ Who needs to complete an IA?

- **IB Mathematics: Analysis and Approaches (AA)** (SL & HL)
  - **IB Mathematics: Applications and Interpretation (AI)** (SL & HL)
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## 2. IB Math IA Requirements

✦ **Word Count:** 6-12 pages (including graphs, equations, and tables).

✦ **Structure:**

- 1 **Introduction** → Topic, research question, and why it's interesting.
- 2 **Mathematical Exploration** → Theory, calculations, applications.
- 3 **Reflection & Conclusion** → What was learned, limitations, real-world impact.
- 4 **Bibliography** → Sources and citations.

✦ **Assessment Criteria:**

- **Communication (4 pts)** → Clear explanations, organization, and presentation.
  - **Mathematical Representation (4 pts)** → Use of graphs, diagrams, and symbols.
  - **Mathematical Understanding (4 pts)** → Depth and accuracy of math concepts.
  - **Reflection (3 pts)** → Insights, connections, and evaluation of findings.
  - **Use of Mathematics (6 pts)** → Complexity and correctness of applied math.
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### 3. IB Math IA Topic Ideas

#### Real-World Applications:

- **Mathematics in Music** (Harmonics & Fourier Series)
- **Golden Ratio in Architecture**
- **Optimization in Business & Economics** (Profit Maximization)
- **Mathematics in Cryptography** (RSA Algorithm)

#### Statistics & Probability:

- **Predicting Sports Outcomes** (Data Analysis of FIFA, NBA, etc.)
- **Correlation Between Sleep & Academic Performance**
- **Stock Market Analysis Using Regression Models**

#### Pure Math Topics:

- **Fractals and Chaos Theory**
- **Game Theory & Decision Making**
- **Exploring the Fibonacci Sequence in Nature**

♦ Would you like me to help structure your IB Math IA or refine your topic?

 reach out here at [mathbysm.com](https://mathbysm.com)