



Free guide for parents

How is MYP Math Graded?

From criterion levels out of 8 to a final grade from 1 to 7: how MYP maths grades are calculated and how to read your child's report.



MYP maths is graded in three steps: teachers give a level from 0 to 8 on each of the four criteria (A–D), add them for a total out of 32, and convert that total to a final MYP grade from 1 to 7 using the IB's grade boundaries. A total of 24–27 is a grade 6; 28–32 is a grade 7.

In the IB Middle Years Programme (MYP), assessment is about growth, understanding, and the learning journey. That being said, it can be tricky to understand where grades come from and what they mean. Let's unpack the criteria, achievement levels, and grades.

Watch a quick video here, or keep reading for more information.

Watch the video: youtube.com/watch?v=9s6qgWrO_LE

Criterion-based assessment

MYP uses a **criterion-based assessment model** across their subjects. This means student work is judged against skill-based criteria rather than counting up points. The goal is to understand each learner's progress with clarity and fairness.

In MYP Mathematics, each task, whether it's a project, investigation, or test, is assessed using at least one of four **criteria** (see below). For each criterion, students demonstrate an "achievement level" on a scale from **0 to 8**.

Criteria	What does it mean?	What does it look like?
Criterion A Knowing and Understanding	Can the student select and apply math to solve problems at different levels of complexity?	Stand-alone assessment; a test, with different sections of complexity.
Criterion B Investigating Patterns	Can they recognize, describe, and verify mathematical patterns?	Stand-alone assessment; a pattern exploration where students apply mathematical concepts to collect information that forms a pattern, so they can generalize it.
Criterion C Communicating	Are they using appropriate math language, different forms of representation, and clear, logical structure?	Can be a stand-alone assessment, but is usually paired with another criterion, where appropriate. Especially effective if there is an opportunity to demonstrate communication with notation, graphs, diagrams, tables.
Criterion D Applying Mathematics in Real-Life Contexts	Can they solve authentic problems and justify their conclusions?	Stand-alone assessment; can be an in-class, timed task, or a project or paper; often a deep-dive of a single problem, linked to the global context.

Assessment in practice: formative and summative

There are two main types of assessment:

Formative

Formative assessments are **assessments for learning, or for growth**. These could include class tasks, quizzes, and homework. They're often not graded, but students **receive feedback to guide improvement** on a skill or criterion.

Summative

Summative assessments are **assessments of learning**, or a snapshot in time of the student's progress. They can take the form of tests or projects that are formally assessed on the criteria, and recorded for reports.

Both are essential. Formative assessments prepare students, while summative ones help evaluate where they are in their journey.

From achievement levels to grades: the 1–7 scale

At the end of a term or year, the **achievement levels** from the summative assessments are considered. Teachers use the **most recent, most consistent** demonstration of the students' knowledge to report one achievement level for each criterion.

To determine a final, overall grade (from 1–7), these achievement levels are totaled, and compared to the published IB grade boundaries (see below).

Student score	Achievement level	Maximum
Criterion A	5	8
Criterion B	6	8
Criterion C	5	8
Criterion D	5	8
Total	21	32

But the number is only part of the story. This grade has a **general descriptor** that should represent the student's demonstration and effort in the subject. In our example, the student had a total of 21, which falls in the 19–23 grade boundary. This gives the student a grade of **5** on the report card.

According to the IB's **MYP Mathematics guide (2020)**, a grade of 5 suggests the student is producing strong work and demonstrating secure understanding. They are even able to apply their knowledge in unfamiliar situations.

3

Developing **basic** understanding. They can produce work of **acceptable quality**, but may need support in many situations.

5

Producing strong work and showing **secure** understanding. They can use knowledge in both **familiar** and some **unfamiliar** settings.

7

Producing **consistently excellent** work and showing a **deep** understanding. They can apply their skills confidently across a range of situations, and often demonstrate innovative thinking.



Grade	Boundary guidelines	Descriptor
1	1–5	Produces work of very limited quality. Conveys many significant misunderstandings or lacks understanding of most concepts and contexts. Very rarely demonstrates critical or creative thinking. Very inflexible, rarely using knowledge or skills.
2	6–9	Produces work of limited quality. Expresses misunderstandings or significant gaps in understanding for many concepts and contexts. Infrequently demonstrates critical or creative thinking. Generally inflexible in the use of knowledge and skills, infrequently applying knowledge and skills.
3	10–14	Produces work of an acceptable quality. Communicates basic understanding of many concepts and contexts, with occasionally significant misunderstandings or gaps. Begins to demonstrate some basic critical and creative thinking. Is often inflexible in the use of knowledge and skills, requiring support even in familiar classroom situations.
4	15–18	Produces good-quality work. Communicates basic understanding of most concepts and contexts with few misunderstandings and minor gaps. Often demonstrates basic critical and creative thinking. Uses knowledge and skills with some flexibility in familiar classroom situations, but requires support in unfamiliar situations.
5	19–23	Produces generally high-quality work. Communicates secure understanding of concepts and contexts. Demonstrates critical and creative thinking, sometimes with sophistication. Uses knowledge and skills in familiar classroom and real-world situations and, with support, some unfamiliar real-world situations.
6	24–27	Produces high-quality, occasionally innovative work. Communicates extensive understanding of concepts and contexts. Demonstrates critical and creative thinking, frequently with sophistication. Uses knowledge and skills

Grade	Boundary guidelines	Descriptor
		in familiar and unfamiliar classroom and real-world situations, often with independence.
7	28–32	Produces high-quality, frequently innovative work. Communicates comprehensive, nuanced understanding of concepts and contexts. Consistently demonstrates sophisticated critical and creative thinking. Frequently transfers knowledge and skills with independence and expertise in a variety of complex classroom and real-world situations.

Source: International Baccalaureate Organization, *MYP Mathematics guide* (2020), general grade descriptors. MYP Math Tutor is independent of the IB.

Try it: the MYP grade calculator

Enter your child's four criterion levels to see the total out of 32 and the final grade from 1 to 7.

Want it on its own page, or to embed it on your school's site? [Open the MYP grade calculator.](#)

Why it matters: growth over scores

One of the biggest takeaways from MYP assessment is that it's designed to track progress. It's about:

- Understanding how students learn, not just what they know.
- Providing feedback that supports growth.
- Encouraging students to take ownership of their learning journey.

The MYP assesses learning in a way that is intentionally different from many educational systems around the world, especially in Mathematics. It can feel unfamiliar at first for students who are used to points and percentages.

Over time, students who embrace attributes of the **IB Learner Profile**, like being **open-minded**, and **reflective**, begin to thrive in MYP Mathematics. They develop a **growth mindset**, see feedback as a tool rather than a judgment, and grow in confidence. With this mindset, assessment becomes a map for what comes next.



OPEN-MINDED



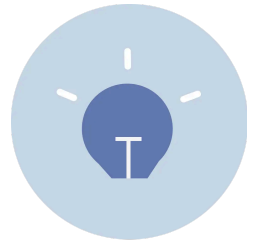
INQUIRERS



BALANCED



CARING



THINKERS



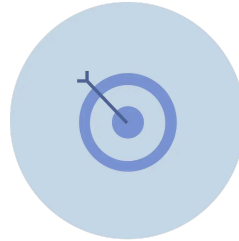
COMMUNICATORS



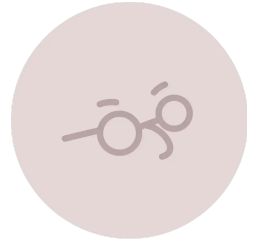
REFLECTIVE



RISK-TAKERS



PRINCIPLED



KNOWLEDGEABLE

What our tutors see

When a student is stuck at a 4 or 5, it is usually one or two criteria holding the total down, most often B, C or D. Lifting a single criterion by two levels can move the final grade, which is why our lessons focus on exactly what each level descriptor is asking for.



About the author

Shannon Mellon is a qualified IB educator who taught IB Mathematics at MYP and DP level at NAIS Dublin and the International School of Hamburg, and now leads business development at MYP Math Tutor.

[Meet the team](#)

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