



**The INVALSI levels in MATHEMATICS – 3rd year of lower secondary school**

**Summary description of levels**

<b>Description of the level Mathematics</b>	<b>Result obtained</b>
The test result obtained by the student does not allow to certify achievement of level 1.	
<b>Level 1.</b> Students use basic knowledge and simple basic skills, mainly acquired in primary school. They can answer questions formulated in simple terms, which relate to routine educational situations in lower secondary school or everyday life contexts, and which are directly and explicitly linked to the information in the text.	
<b>Level 2.</b> Students know the basic concepts stipulated in the National Mathematics Guidelines for lower secondary school and are able to perform basic calculation procedures and basic processes. They can use the usual representations of the mathematical objects studied (for example decimal numbers) and can sift the data in various types of graphs and tables to obtain information. They can solve simple, familiar problems and answer questions where there is a direct connection between the situation described and the question and where the result is immediately interpretable and recognisable within the context.	
<b>Level 3.</b> Students can use the basic skills acquired in lower secondary school and make connections between fundamental pieces of knowledge. They can answer questions requiring simple reasoning on information and data, or which require checking each of the steps leading to the solution. They can solve problems in familiar contexts or those that introduce some new elements, for example in the way information is represented. They can recognise different representations of the same mathematical object (e.g. decimal numbers and fractions).	
<b>Level 4.</b> Students know the main mathematical objects (for example geometric shapes) met in the lower secondary school and can use the knowledge learned effectively, including in unusual cases. They can respond to questions in which the information is not explicitly related to the instructions but requires interpretation of the given situation, including in an unfamiliar context. They can successfully construct a model with which to work, using the symbolic language of mathematics at a basic level. They can use different representations of known mathematical objects, particularly numbers. They can describe the reasoning used in reaching a solution and can recognise the correct argument to support a hypothesis from a selection of arguments. They can provide reasoning to support a given answer, particularly as regards the representation of a set of data.	
<b>Level 5.</b> Students confidently use the conceptual and procedural aspects of the most important topics suggested in the National Mathematics Guidelines for lower secondary school. They answer questions that concern unfamiliar situations and for which a suitable model must be constructed. They use different representations of mathematical objects and can move confidently from one to another. They illustrate and summarise problem-solving procedures and strategies and provide justifications using language which is appropriate for the educational level, including symbols, in all content areas (Numbers, Space and shapes, Relationships and functions, Data and predictions).	