Metacognitive Assessment Series

MAS Numerical *Advanced*

Assessment Report

Name: Sample Test

Using this Report

In reading and using this report, please note the following:

- The MAS Numerical assessment is designed to identify highly numerate and confident people whose decision making is not influenced by overconfidence or underconfidence in their abilities. It samples both fluid ability and numerical crystallized knowledge and combines scores algorithmically to allow easy comparison of people.
- This assessment also samples metacognition by requiring the test taker to 'think about their thinking' and to indicate the confidence they have in the answers they give to test questions. This is used to evaluate their Decision Making Style for any evidence of confidence bias.
- If the test was taken unsupervised, the person's results can be verified by a subsequent proctored verification test.
- The assessment provides supportive information for hiring or promotional decisions and should not be used as a sole source for denying employment or promotion. The results should be considered along with other information about the person before making a decision.
- Keep in mind the date of the report as the results are considered to be valid for a period of 12 months. The report must be kept securely and not retained beyond the agreed period.
- The information in this report is confidential and is intended for use by managers and recruiters responsible for the assessment.
- This report has been produced electronically by the ebilities application and there is no guarantee that the contents are unchanged from the original version. ebilities accepts no liability for this or for the consequences of the use of this report.

Information that is specific to the person named in this report can be quickly identified by looking for this icon:

Executive Summary

Numeracy is a vital part of the functioning of all organisations and is critically important to job performance in many disciplines. In terms of numerical ability, what does it take to stand out?

It takes excellent mental arithmetic skills. Mental arithmetic is essential in its own right for many everyday work tasks, but most importantly, it is the foundation for more complex quantitative skills.

It also takes the capacity to quickly spot patterns and trends in numbers, and to make logical predictions.

And it also requires an aptitude for understanding financial concepts and critically evaluating detailed financial information.

This assessment measures these abilities and the results are combined into a single score - the **Numerical Quotient** - to quickly determine which people stand out in terms of their numerical ability.

Is this person a strong numbers person?

This person's Numerical Quotient is **HIGH** compared to the scores of:

Working Adults (Graduates)

This person is a strong numbers person and highly capable of dealing with both simple and complex numerical problems under the pressures of time.

Numerical Quotient	**125**
Mental Arithmetic	90%
Pattern Recognition	75%
Financial Reasoning	67%

Confident, timely and accurate decision making is an important component of job performance and is especially important in identifying people with high potential.

People who are overconfident may take ill-advised risks, fail to appreciate the consequences of their actions, and make poor decisions.

People who are underconfident may be overly cautious, doubt their judgement, and hesitate to act decisively when it's required.

This assessment evaluates a person's Decision Making Style to detect any patterns of overconfidence or underconfidence.

Is overconfidence or underconfidence likely to affect this person's decision making?

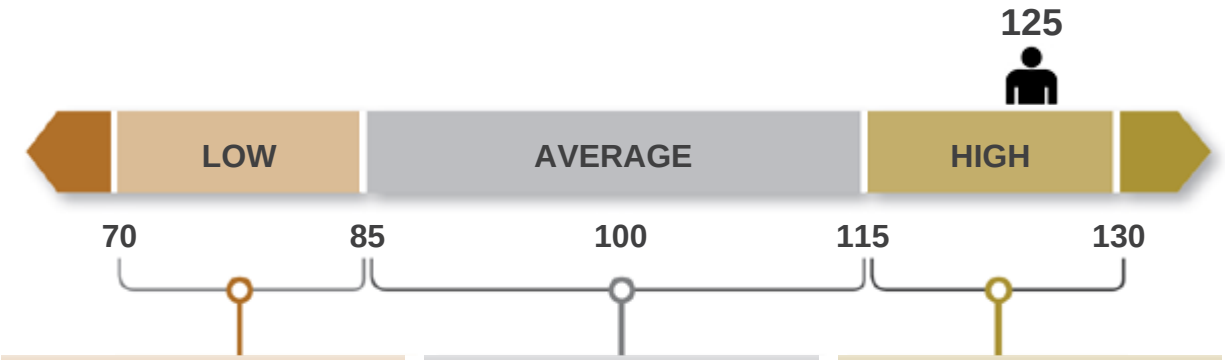
This person's Decision Making Style is **Analytical**. He/She shows a tendency towards underconfident decision making.

Analytical

Cognitive Ability

The Numerical Quotient is an indicator of a person's numerical ability. A score between 85 and 115 is within the average range for the norm group. Only a very small number of similarly qualified people would be expected to score above 130 or below 70.

Note: This assessment is designed to help differentiate people in terms of low, average and high numerical ability. It is important to not over-interpret small differences in scores.



People who score in this range achieved a lower level of performance in solving numerical and financial problems. They may find it more difficult than most of their peers to quickly deal with this information, and may require more time to achieve a higher level of accuracy.

People who score in this range are around average and will be as capable as most of their peers in understanding and solving numerical and financial problems. Their position in the average band will indicate their relative strength as a numbers person.

People who score in this range are strong numbers people and are able to solve numerical and financial problems quickly and accurately. They are likely to be highly efficient in dealing with problems which draw on their numerical reasoning abilities.

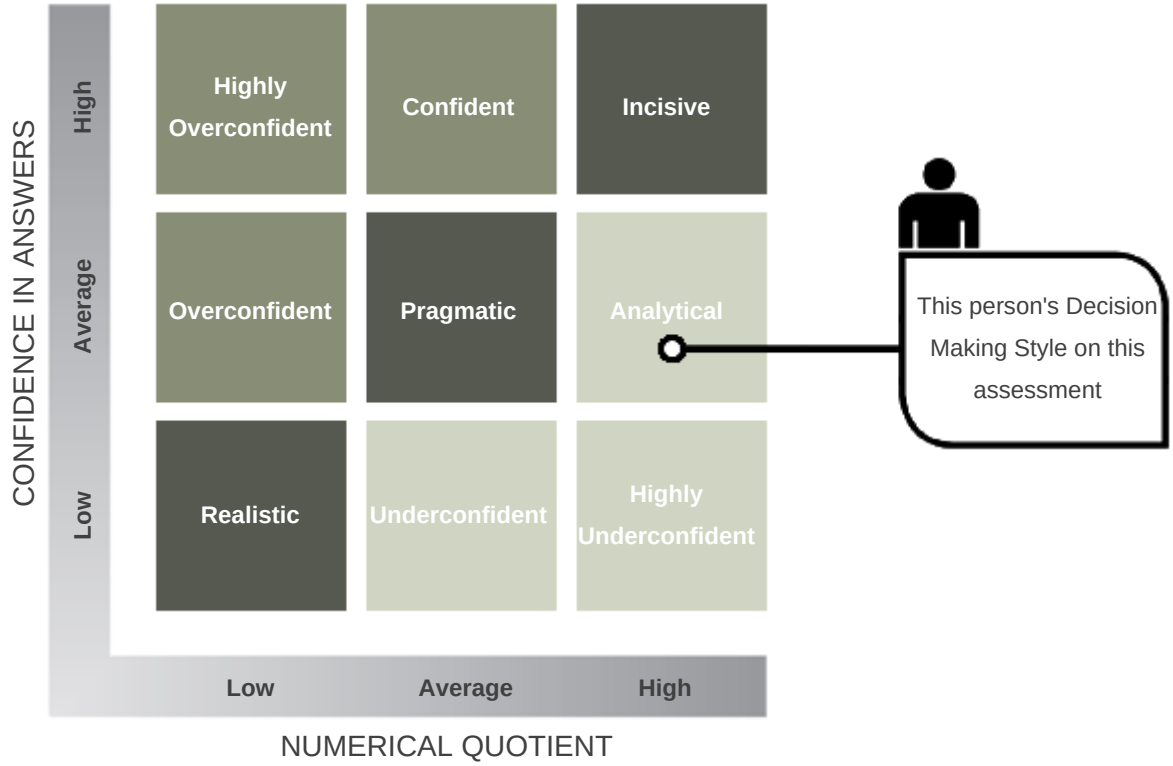
How is the Numerical Quotient Derived?

The Numerical Quotient (NQ) is a combined test score that is rated as Low, Average or High compared to the selected norm group. It is not based on a simple tally of how many questions this person answered correctly.

The algorithm that is used to calculate the NQ was scientifically established by a Psychometrician. Sophisticated statistical procedures were used to examine how scores on each test could be appropriately weighted and combined into a single score, and the extent to which response time data could be added into the algorithm to provide additional differentiation between test takers by sampling the Cognitive Speediness aspect of the Gf/Gc model of cognitive abilities. Accordingly, people who have similar raw test scores may not achieve the same NQ.

Decision Making Style

The matrix below shows nine broad Decision Making Styles. A person is placed in one of the nine cells based on their Numerical Quotient and the level of confidence they maintained in the answers they gave to the test questions. An Incisive person on this assessment is considered to be a highly numerate, confident and accurate decision maker.



The section below includes general statements about people who are located in this cell. Individuals may vary in the extent to which they display these characteristics.

Analytical

General characteristics

Despite a high level of ability, their confidence levels are only average, and they tend towards underconfident decision making. While highly capable, they may not always trust their judgement and are inclined to recheck their thinking before making a decision. A cautious approach combined with high ability levels may be sought after in jobs where careful consideration and a high level of accuracy is of utmost importance. It may be less desirable in positions that require rapid decision making under time pressure.

Profile Strengths

- High level of problem solving ability
- Careful in reviewing information and arriving at a solution
- Checks thinking and seeks advice as appropriate

Profile Weaknesses

- Underestimates true abilities
- Reluctant to make rapid decisions
- Conservative in relation to risk

Appendix

The table below includes details of this person's performance on the constituent tests. Norms have not been applied to these raw scores.

MENTAL ARITHMETIC	**90%**	**20 Questions**
		# Correct 18
		# Incorrect 2
		# Timed Out 0
PATTERN RECOGNITION	**75%**	**8 Questions**
		# Correct 6
		# Incorrect 1
		# Timed Out 1
FINANCIAL REASONING	**67%**	**6 Questions**
		# Correct 4
		# Incorrect 2
		# Timed Out 0

MENTAL ARITHMETIC

People who score highly are quick to perform fundamental mathematical calculations including addition, subtraction, division and multiplication without the use of a calculator or pen and paper.

In the workplace they will be fast and accurate in dealing with everyday numerical tasks, such as performing quick mental calculations, taking measurements, and making estimates and other simple mathematical operations without the need for input or assistance.

PATTERN RECOGNITION

People who score highly are able to logically evaluate numerical data and can quickly identify trends and patterns in order to make correct predictions.

In the workplace they will use their reasoning skills to quickly and accurately read and evaluate information presented in charts, tables and other forms of statistical data. They can spot anomalies and errors, make logical predictions and solve problems, based upon their accurate interpretation of numerical information.

FINANCIAL REASONING

People who score highly can rapidly understand and solve problems drawing on data presented in tables and charts, concerning interest rates, currency conversions and financial returns.

In the workplace they will readily understand financial concepts and have the advanced numerical reasoning skills to critically analyse financial and statistical data, evaluate alternatives and make quick calculations to arrive at solutions to more complex problems.