

# Sam Sample



**ABSTRACT REASONING TEST** 





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## REPORT STRUCTURE

The Abstract Reasoning Standard Report presents Sam Sample's results in the following sections:

#### 1. Guide to Using This Report

- Introduction
- The Abstract Reasoning Standard Report
- Supplementary Reports
- Reference Group (Norms) Used
- Understanding the Charts and Tables

#### 2. Abstract Reasoning

- Result Description
- Results Chart

### **DISCLAIMER**

This is a strictly confidential assessment report on Sam Sample which is to be used under the guidance of a trained professional. The information contained in this report should only be disclosed on a 'need to know basis' with the prior understanding of Sam Sample.

The results must be interpreted in the light of corroborating evidence gained from feedback and in the context of the role in question taking into account available data such as performance appraisals, actual experience, personality preferences, motivation, interests, values and skills. As such the authors and distributors cannot accept responsibility for decisions made based on the information contained in this report and cannot be held directly or indirectly liable for the consequences of those decisions.





## **GUIDE TO USING THIS REPORT**

### INTRODUCTION

The Abstract Reasoning Test (ART) is designed to assess reasoning ability in its 'purest' and most abstract form. It has been specifically developed to discriminate between candidates of above average ability, whose aptitude is being assessed for professional, senior managerial and graduate level employment. Matrix reasoning tests, in the format of the ART, are generally considered to provide the best method for assessing a person's fluid intelligence; or 'innate' mental ability. By assessing reasoning ability without reference to prior knowledge or experience such tests are designed to provide a measure of a person's 'potential', independently of that person's educational experience and achievement to date. Moreover, by not providing respondents with any contextual clues that might help them anticipate the logic underpinning the items, matrix reasoning tests are considered to assess 'mental flexibility'; namely the ability to apply 'pure logic' adaptively to understand novel situations and analyse new problems.

Abstract Reasoning assesses holistic deductive reasoning; namely, the ability to understand the logical rules that govern patterns which change simultaneously across more than one dimension. As such, the particular aspect of reasoning ability that the ART assesses is central to strategic thinking, to the ability to grasp the 'big picture' and understand complex 'real world' (i.e. multi-dimensional) problems. The Abstract Reasoning Test is therefore particularly relevant for assessing candidates for roles which require the incumbent to think strategically, understand novel situations they have not encountered before and take logical decisions based on a sound understanding of complex, multi-dimensional patterns and relationships.

Tests of general mental ability, such as the ART, have consistently been found to be the best single predictor of job performance and trainability. Combining reasoning test scores with the results from personality tests can further improve the prediction of job performance, as can the use of job sample tests, assessment centre exercises and structured interviews. In roles where interpersonal skills (e.g. persuasiveness, diplomacy, etc.) or individual competencies (emotional intelligence, the ability to cope with stress, etc.) are important to successful performance, it may be particularly appropriate to combine information obtained from reasoning tests with the results of a personality test. In roles where experience and acquired knowledge are central to effective performance, it may be particularly appropriate to combine information obtained from reasoning tests with information obtained from assessment centre type exercises, etc.

The additional diagnostic (raw) scores, which are provided after the profile chart for the Abstract Reasoning Test, enable assessors to establish the respondent's test taking style. These provide additional information which allows assessors to determine the trade-off the candidate has made between speed (Percentage Items Attempted) and accuracy when responding to the test items. Assessors should be mindful of the need to interpret these raw scores in the context of the candidate's scaled (stanine or percentile) score on each subtest, as **both** accuracy and speed will increase for higher scorers.

#### THE ABSTRACT REASONING STANDARD REPORT

The abstract reasoning standard report provides a detailed breakdown of the respondent's performance in the Abstract Reasoning Test using narratives and profile charts.





### SUPPLEMENTARY REPORTS

The information gained from this report can be used in conjunction with other supplementary reports. The supplementary reports available for the Abstract Reasoning Test are:

#### **Results Spreadsheet**

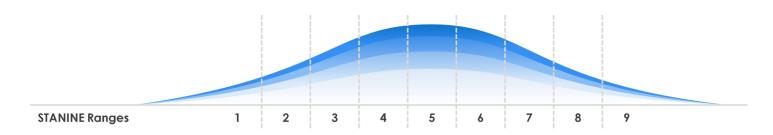
The results spreadsheet provides a summary of the respondents' results in the form of a spread sheet.

#### Respondent Feedback Report

The feedback report is intended for sharing directly with respondents for their personal insight. It provides a breakdown of the respondent's performance using simplified narratives.

### REFERENCE GROUP (NORMS) USED

A reference group is used to evaluate 2's results. Her results are presented as standardised STANINE scores with Mean=5 and SD=2 as demonstrated in the following chart.



The following norm was used to generate this report:

Test	Norm Used	Sample Size		
Abstract Reasoning (ART)	Working Age Adults	531		



### **UNDERSTANDING THE CHARTS AND TABLES**

Much of the information presented in this report is presented in the form of charts or tables, which is why it is important to be able to read them accurately and make use of the information contained within them. The following elements are used to present the data in the charts and tables:

Element	Description
Raw	The Raw score is simply the (un-scaled) sum of correct responses the respondent receives on the test scale.
Attempted (Att.)	Is the number of questions the respondent has attempted to answer regardless of whether the answers were correct or not.
STANINE Score	Is a standardised scale used to compare respondent results. The STANINE Score has a Mean of 5 and Standard Deviation of 2. This score is presented as a 9-point scale in the results chart.
Standard Error of Measurement (SEm)	The Standard Error of Measurement is a measure of the range within which an individual's hypothetical 'true' score is likely to fall within 68% probability. It is presented as blue error bar surrounding the respondent's obtained STANINE score in the results chart.
T Score	Is another standardised score used to compare respondent results. It is similar to the STANINE score, though has a Mean of 50 and Standard Deviation of 10. This score is presented as a numerical value in the results chart.
Percentile Score (%ile)	A value which reflects the percentage of people in a sample who score below a given raw score. This score is presented as a numerical value between 0 and 100 in the results chart.
Percentage Items Correct	Is the percentage of the number of correct responses over total number of items.
Percentage Items Attempted	Is the percentage of the number of items attempted over total number of items.
Percentage Accuracy	Is the percentage of the number of correct responses over the number of items attempted.







### **ABSTRACT REASONING**

### RESULT DESCRIPTION

Sam Sample's score on the Abstract Reasoning Test indicates that her level of natural (i.e., untutored) reasoning ability falls well below that of the chosen reference group. This suggests that she is likely to have significantly less ability than most graduate calibre staff to correctly identify complex patterns in material that she has not encountered before, without the need to use contextual cues to aid her understanding. Similarly, her ability to understand the logic that underpins patterns that change independently across two dimensions, and to deduce the consequences of these patterns without reference to previous knowledge and experience, is likely to be noticeably weaker than that of most staff of broadly graduate ability.

As a result Sam Sample would be expected to have significantly less 'mental flexibility' than most graduate level staff. Moreover, having demonstrated a low level of ability (in comparison to the chosen reference group) to logically analyse and understand novel problems, she is likely to be much less able than most graduate level staff to perceive the significance of complex new situations and correctly extrapolate the likely (future) consequences of these. While she would be expected to appreciate the importance of strategy, she is nonetheless likely to have difficulty understanding particularly complex strategies. As a result, strategic thinking is unlikely to be one of her areas of strength.

As her ability to use abstract logic to understand novel situations and problems is likely to be significantly weaker than that of most staff of broadly graduate ability, she might be expected to have some difficulty fully comprehending abstract concepts and complex logic. As a result, it is likely to take her longer than most graduate calibre staff to learn new material. She is likely to gain most benefit from training that is skills based, and might be expected to have some difficulty fully grasping any particularly abstract concepts or subtle logic that may underpin the skills she has acquired.

RE	SULTS CHART								
Scale	Description	Raw	Att.	1 2 3	4 5 6	7 8	3 9	T Score	%ile
ART	Abstract Reasoning	3	30					20	0
Norm Used: Abstract Reasoning = 531 Working Age Adults									
Scale	Description	Percentage Items Correct		Percentage Items Attempted			Percentage Accuracy		
ART	Abstract Reasoning	9		86			10		