

ITESTHUB · ABILITY TEST REPORT

Mechanical Comprehension

A report for
Sample Candidate

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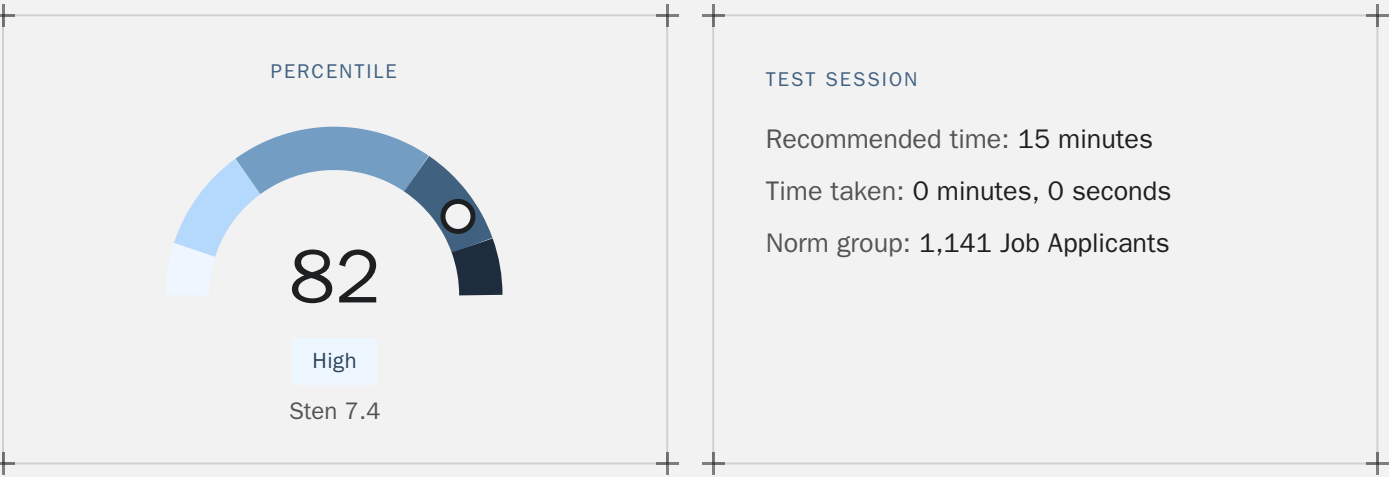
Completed 29/08/2026 · Norm group: 1,141 Job Applicants · Report valid 18–24 months

This report is confidential and is intended solely for the person responsible for assessing Sample Candidate, who completed the Mechanical Comprehension on 29/08/2026.

Interpreting scores

Scores on Mechanical Comprehension are calculated by comparing an individual's score with a large group of people (norm group) who have also completed the same test. These are expressed as 'percentiles' -- use the key below to benchmark Sample's result.

Very Low	Low	Mid	High	Very High
1–10%ile	11–30%ile	31–69%ile	70–89%ile	90–100%ile



What This Test Measures

This mechanical reasoning test assesses a candidate's ability to understand and apply basic mechanical and physical principles. These skills will be apparent when:

- **Understanding Forces & Mechanical Advantage:** Understanding how forces operate within scales, springs, and pulley systems, including how weight, position, and mechanical arrangements affect the force required to balance, compress, or lift objects.
- **Understanding Movement & Electrical Systems:** Understanding how connected systems operate, including predicting the speed and direction of rotating wheels and cogs and determining how opening or closing switches affects the operation of electrical circuits.
- **Understanding Volume & Physical Relationships:** Applying basic physical principles to determine how a fixed volume of water behaves in containers of different shapes and dimensions.

Improving Your Mechanical Reasoning Skills

Mechanical reasoning skills can be improved by developing your understanding of common mechanical and physical principles and practising how they apply to practical problems.

1. Understanding Forces & Mechanical Advantage

Proficiency in this area indicates that a candidate can understand how forces interact within scales, springs, and pulley systems.

- **Balance & Leverage:** Practise determining how weight and position affect the balance of scales and levers.
- **Springs:** Explore how parallel and consecutive spring arrangements affect the force required for compression.
- **Pulleys:** Learn how different pulley arrangements distribute loads and reduce the force required to lift a weight.

Practical Tip: Practise solving diagrams involving scales, springs, and pulleys, focusing on how changing the arrangement affects the force required.

2. Understanding Movement & Electrical Systems

Proficiency in this area indicates that a candidate can understand how movement and electricity are transferred through connected systems.

- **Rotation:** Practise predicting the direction in which connected wheels and cogs will rotate.
- **Speed:** Explore how the relative sizes of connected wheels and cogs affect their rotational speed.
- **Circuits:** Practise tracing electrical circuits to determine how opening and closing switches affects which lights operate.

Practical Tip: Work through simple gear and circuit diagrams, predicting what will happen before checking the correct answer.

3. Understanding Volume & Physical Relationships

Proficiency in this area indicates that a candidate can understand how the same volume of liquid behaves in containers of different shapes and dimensions.

- **Volume:** Remember that transferring water between containers does not change its volume.
- **Container Shape:** Consider how wider and narrower sections affect the height reached by the water.
- **Visual Estimation:** Practise predicting water levels when equal volumes are placed in differently shaped containers.

Practical Tip: Compare differently shaped containers and practise predicting the level that the same quantity of water would reach in each.

By developing these skills, you can improve your ability to recognise mechanical relationships, apply basic physical principles, and solve practical mechanical problems accurately.