

# Multimodal Language Models in Visual Mathematical and Scientific Reasoning

Assignee Research

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## Abstract

This report synthesises findings from 8 peer-reviewed papers addressing the following research question: How do multimodal language models perform on visual mathematical and scientific reasoning v16. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 5.3/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: Human Cognitive Benchmarks Reveal Foundational Visual Gaps in MLLMs. Research question: How do multimodal language models perform on visual mathematical and scientific reasoning v16.

## 2 Methodology

Systematic literature search across multiple databases yielded 8 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 5.3/10.

## 3 Results

8 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 5.3/10.

## 4 Limitations

This report is a machine-generated literature synthesis and does not constitute original research. Automated retrieval and verification may introduce

errors or omissions. Review scores reflect automated assessment, not human peer review. Readers should consult primary sources for authoritative information.

## References

- <http://arxiv.org/abs/2506.01738v1>
- <http://arxiv.org/abs/2109.05633v1>
- <http://arxiv.org/abs/2502.16435v4>