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Differences in cognitive ability and academic motivation among three institutions AMANDA BENSON, MICHAEL GREENE, RAMON LOPEZ, The University of Texas at Arlington — There is an abundance of evidence to suggest that mental rotation ability, scientific reasoning ability, and academic motivation all contribute to a student's performance in introductory calculus-based physics. Data was collected from the University of Texas at Arlington, Texas Christian University, and Yale University. We administered the Mental Rotation Test, and the Classroom Test of Scientific Reasoning, and the Motivated Strategies for Learning Questionnaire to students enrolled in introductory physics. In this study, we report descriptive statistics and statistical inferences of these measures among institutions.

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