

VERIFIED

CERTIFICATE *of* ACHIEVEMENT

This is to certify that

Abrantes Araújo Silva Filho

successfully completed and received a passing grade in

18.01.1x: Calculus 1A: Differentiation

a course of study offered by MITx, an online learning initiative of the
Massachusetts Institute of Technology through edX.



VERIFIED CERTIFICATE
Issued November 23, 2018

VALID CERTIFICATE ID
[91b5b4410187414bb74f5c293089325c](#)



A handwritten signature in black ink, reading 'David Jerison'.

David Jerison

Professor

Department of Mathematics

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A handwritten signature in black ink, reading 'Gigliola Staffilani'.

Gigliola Staffilani

Abby Rockefeller Mauzé Professor

Department of Mathematics

Massachusetts Institute of Technology

A handwritten signature in black ink, reading 'Krishna Rajagopal'.

Krishna Rajagopal

Dean for Digital Learning

Massachusetts Institute of Technology