

Mathematics 3820H – Mathematics from medieval to modern times

TRENT UNIVERSITY, Winter 2018

Assignment #4

Acceleration Galileo's way

Due on Friday, 8 March, 2019.

Read pp. 153-175 of Galileo's *Dialogues Concerning Two New Sciences* and then do the following questions.

1. State and prove THEOREM I, PROPOSITION I (p. 173) of the section *Naturally Accelerated Motion* (beginning on p. 160) using modern terminology, notation, and techniques. [5]
2. State and prove THEOREM II, PROPOSITION II (p. 174) of the section *Naturally Accelerated Motion* (beginning on p. 160) using modern terminology, notation, and techniques. [5]

REFERENCE

1. *Dialogues Concerning Two New Sciences*, by Galileo Galilei, trans. by H. Crew & A. de Salvio (MacMillan, New York, 1914), which can be found (pdf, epub, & other formats) online at:

<http://openlibrary.org/works/OL15231447W>