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A Study of Buoyant Forces and Oscillations of Floating Objects WLEAD ABUBAKER, JOSEPH GRUND, SAMUEL KIDD, KEN TAYLOR, Lake Highlands High School — This paper discusses various factors that affect the buoyant force of a liquid on an immersed object. The presentation considers such influences as liquid temperature, density and volume of fluid displacement. Different liquids are used in the study to compare the impacts of the various system parameters. An added feature of the presentation is a quantitative description of the periodic motion of a floating body as it oscillates up and down. Data are presented for objects of various shapes. In addition, comparisons with simple harmonic motion are made for each case.

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