

NAME (Print) \_\_\_\_\_

Borough of Manhattan Community College

Course *Physics 215*

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**Quiz 08**

A simple pendulum consists of a thin aluminum wire of length  $L_0 = 1$  m and cross sectional area  $1 \times 10^{-5}$  m<sup>2</sup> and a brass ball of mass  $m = 0.2$  kg and radius  $R = 0.01$  m. at temperature  $T_0 = 27^\circ\text{C}$ . How does the value of the period  $P$  change when the temperature increases by  $\Delta T = 100^\circ\text{C}$ ? When the temperature decreases by  $100^\circ\text{C}$  ,  $\Delta T = -100^\circ\text{C}$ .

**Get an equation for the change in the period in terms of  $\Delta T$  and whatever material properties affect it.**

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