

Pendulums

MATH 211

1. Suppose an 4 foot long simple pendulum begins from rest at an initial angle of $\frac{\pi}{6}$ radians. Find θ as a function of time. [You may use $g \approx 32$ ft/s².]

$$\theta'' + \frac{g}{l}\theta = 0$$

2. Suppose an 7 meter long simple pendulum begins from rest at an initial angle of $\frac{\pi}{2}$ radians. Find θ as a function of time. [You may use $g \approx 9.8$ m/s².]

$$\theta'' + \frac{g}{l}\theta = 0$$