

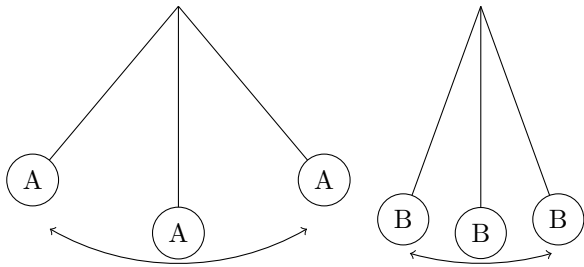
Simple Harmonic #1

1. What are the two things that affect the period of a pendulum?

2. Why does amplitude *not* affect the period of a pendulum?

3. Why does mass *not* affect the period of a pendulum?

4. Pendulum A and pendulum B are identical, except that pendulum A has twice as much amplitude.



(a) Which pendulum has the longer period? How do you know?

(b) Which pendulum has the faster top speed? How do you know?

5. What are the four equations you will need to memorize for this unit?

Name:

Date:

Period:

6. In order to capture video, a video camera takes 32 pictures per second.

(a) What is the frequency with which the camera takes pictures?

(b) What is the period?

7. A flautist in the marching band makes 120 steps in one minute (60 seconds).

(a) What is the frequency with which the flautist takes step?

(b) What is the period?

8. What is the (a) period and (b) frequency of a pendulum that has a mass of 0.25 kg and a length of 2 meters?

9. What is the length of a pendulum that has a period of 5.2 seconds?