

Name: _____

_____/6

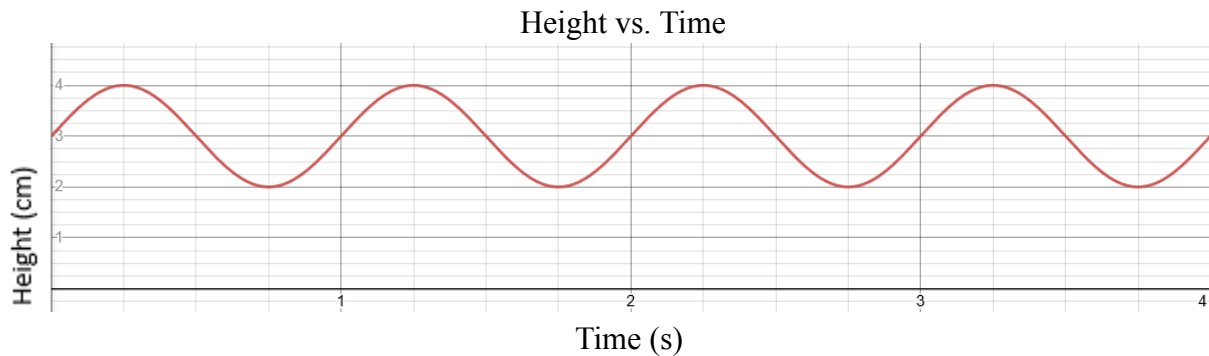
Chapter 18.2 Homework
Conceptual Physics

Parent Signature: _____

Each numbered question is worth one point unless otherwise noted.

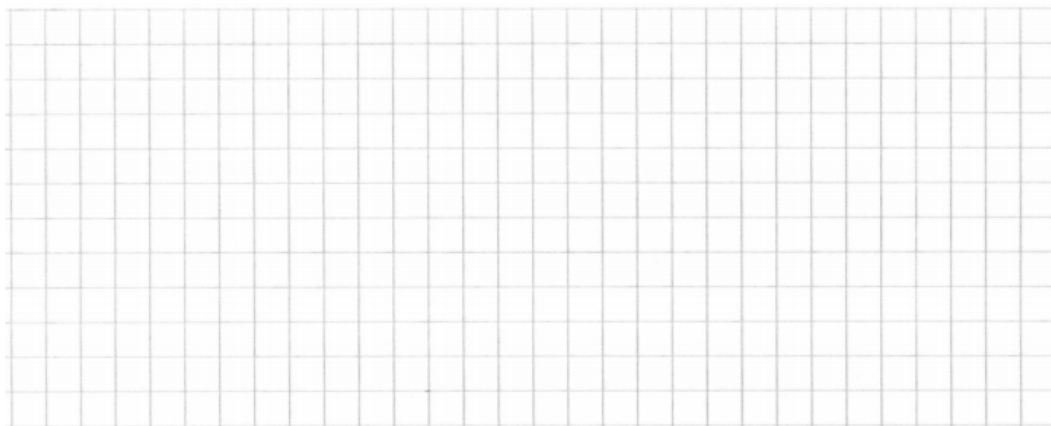
Solving Problems

6. The graph below shows the motion of an oscillator that is a weight hanging from a rubber band. The weight moves up and down. Answer the following questions using this graph. (This graph is slightly different from the one in the book.) (2)



- What is the period?
- What is the frequency?
- What is the amplitude?
- If you count for 5 seconds, how many cycles would you count?

7. Make a graph of three cycles of motion for a pendulum that has a period of 2 s and an amplitude of 5 cm. (3)



8. Which of the three graphs on page 443 illustrates the harmonic motion of two children on swings, 180° out of phase? What fraction of a 360° cycle are these two graphs out of phase: $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, or $\frac{3}{4}$?