Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_\_\_\_

**Ch 11.2 Simple Harmonic Motion** Page 379 - Practice Problems B– Simple Harmonic Motion of a Simple Pendulum

1. If the period of the pendulum in the preceding sample problem were 24 s, how tall would the tower be?
2. You are designing a pendulum clock to have a period of 1.0s. How long should the pendulum be?
3. A trapeze artist swings in simple harmonic motion with a period of 3.8 s. Calculate the length of the cables supporting the trapeze.
4. Calculate the period and frequency of a 3.500 m long pendulum at the following locations:
5. The North Pole, where ag = 9.832 m/s2
6. Chicago, where ag = 9.803 m/s2
7. Jakarta, Indonesia, where ag = 9.782 m/s2