1. A string vibrates at a frequency of 20 Hz. What is its period? 1/20 SEC.

2. A speaker vibrates at a frequency of 200 Hz. What is its period? 1/200 SEC. (0.005 sec)

3. A swing has a period of 10 seconds. What is its frequency? 1/10 Hz.

4. A pendulum has a period of 0.3 second. What is its frequency?
1/0.3 Hz (3.3 Hz)

5. You want to describe the harmonic motion of a swing. You find out that it take 2 seconds for the swing to complete one cycle. What is the swing's period and frequency?
FREQ = 1/2 Hz. PER = 2 SEC.

6. An oscillator makes four vibrations in one second. What is its period and frequency?
PER = 1/4 SEC. → FREQ = 4 Hz.

7. A pendulum takes 0.5 second to complete one cycle. What is the pendulum's period and frequency?
PER = 0.5 SEC FREQ = 1/0.5 Hz = 2 Hz

8. A pendulum takes 10 seconds to swing through 2 complete cycles.
   a. How long does it take to complete one cycle? 5 sec.
   b. What is its period? 5 sec.
   c. What is its frequency? 1/5 Hz.

9. An oscillator makes 360 vibrations in 3 minutes.
   a. How many vibrations does it make in one minute? 120
   b. How many vibrations does it make in one second? 2
   c. What is its period in seconds? 1/2 sec
   d. What is its frequency in hertz? 2 Hz