1.

When a simple harmonic oscillator is subjected to a damping force a) The total mechanical energy is conserved.

b) The amplitude is decreasing but the total mechanical energy remains constant.

c) The total energy and amplitude are decreasing.

d) None of the above is true.

2.

Consider a mass on a spring, oscillating under the influence of a nonconservative retarding force, such as air drag. How would the retarding force affect the period of the oscillations? Justify your answer.