

---

### Task #1

A certain spring stretches **5.2 cm** when **130 g** are hung from it. What is the spring constant?

**Solution:** 24.5 N/m

---

### Task #2

Find the period and frequency of a spring with constant 5.0 N/m when 3.5 kg of mass are hung from it.

**Solution:** 5.25 s; 0.19 Hz

---

### Task #3

What is the length of a pendulum that has a period of precisely 1.00 second.

**Solution:** 0.248 m

---

### Task #4

What mass must you attach to a spring of constant 300 N/m in order for it to make 20 oscillations in 5 seconds?

**Solution:** 0.18 kg

---