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**Ch 11.1 Simple Harmonic Motion** Page 371 - Practice Problems A– Hooke’s Law

1. Suppose the spring in Sample problem A is replaced with a spring that stretches 36 cm from its equilibrium position. (mass is .55 kg)
2. What is the spring constant in this case?
3. Is the spring stiffer or less stiff than the one in Sample Problem A?
4. A load of 45 N attached to a spring that is hanging vertically stretches the spring 0.14 m. What is the spring constant?
5. A slingshot consists of a light leather cup attached between two rubber bands. If it takes a force of 32 N to stretch the band 1.2 cm, what is the equivalent spring constant of the two rubber bands?
6. How much force is required to pull a spring 3.0 cm from its equilibrium position if the spring constant is 2.7 x 103 N/m?