Spring Problems

1. You hang $0.5~\mathrm{kg}$ of oranges on a grocery scale and the spring stretches 4 cm. Calculate the spring constant.

2. When you hang 0.60 kg on a certain spring, it oscillates at 3.0 Hz. What will be the frequency if you take the 0.60 kg off and instead hang 0.38 kg on the spring?