## Hw8

1 Determine $\omega_{0}, R$, and $\delta$ so as to write the given expression in the form $u=R \cos \left(\omega_{0} t-\right.$ $\delta)$.
(1) $u=3 \cos (2 t)+4 \sin (2 t)$;
(2) $u=-3 \cos (2 t)+4 \sin (2 t)$.
2. A mass weighting 2 lb stretches a spring 6 in . If the mass is pulled down an additional 3 in and then released, and if there is no danping, determine the position $u$ of the mass at any time $t$, Find the frequency, period, amplitude, and phase of the motion.

