1. You will need $\$ 2400$ in cash two years from now. Your parents tell you that if you give them some amount of money now, they will pay you $10 \%$ annual simple interest on it, with no compounding. How much money do you need to give them in order to have the $\$ 2400$ in two years?
2. If you invest $\$ 1000$ in a bank account that pays $8 \%$ annual interest, compounded monthly, how much will there be in the account after 3 years?

$$
\begin{array}{lll}
\$ 1000\left(1+\frac{8}{12}\right)^{3} & \$ 1000(1+.08)^{36} & \$ 1000\left(1+\frac{.08}{12}\right)^{36} \\
\$\left(1000+\frac{.08}{12}\right)^{3} & \$ 1000+\left(\frac{.08}{12}\right)^{36} & \$ 1000\left(\frac{8}{12}\right)^{3}
\end{array}
$$

3. If you invest $\$ 1000$ at $8 \%$ annually, compounded monthly, how many months will it be until you double your money?

$$
\begin{array}{lll}
\log (1000)\left(1+\frac{.08}{12}\right) & \frac{\log (2000)}{\log \left(1+\frac{.08}{12}\right)} & \frac{\log (2)}{\log \left(1+\frac{.08}{12}\right)} \\
\frac{\log (1000)}{\log \left(1+\frac{.08}{12}\right)} & \sqrt{1000+\frac{.08}{12}} & \frac{1}{12} \log \left(1+\frac{.08}{12}\right)
\end{array}
$$

