1. Derive the leading order uniform approximation to the general solution of
\[ \epsilon^3 u''' - q(x)u = 0, \quad q(0) \neq 0 \]
using WKB in the limit of small $\epsilon$.

2. Derive connection formulas for
\[ \epsilon^2 u'' - q(x)u = 0, \]
where
\[
q(x) > 0 \text{ for } x > 0 \\
q(x) < 0 \text{ for } x < 0 \\
\lim_{x \to 0^+} q(x) = a^2 > 0 \\
\lim_{x \to 0^-} q(x) = -b^2 < 0.
\]
and give an expression for the leading order general solution in the limit of small $\epsilon$. 