

HW 13.1 Use the WKB approximation to calculate the energy levels of a harmonic oscillator with angular frequency $\omega = \sqrt{K / m}$.

HW 13.2 Use the WKB approximation to calculate the transmission coefficient for the potential barrier

$$V(x) = V_0 \left(1 - x^2 / a^2\right) \quad \text{for } -a \leq x \leq a$$

with $V(x) = 0$ for $|x| > a$.