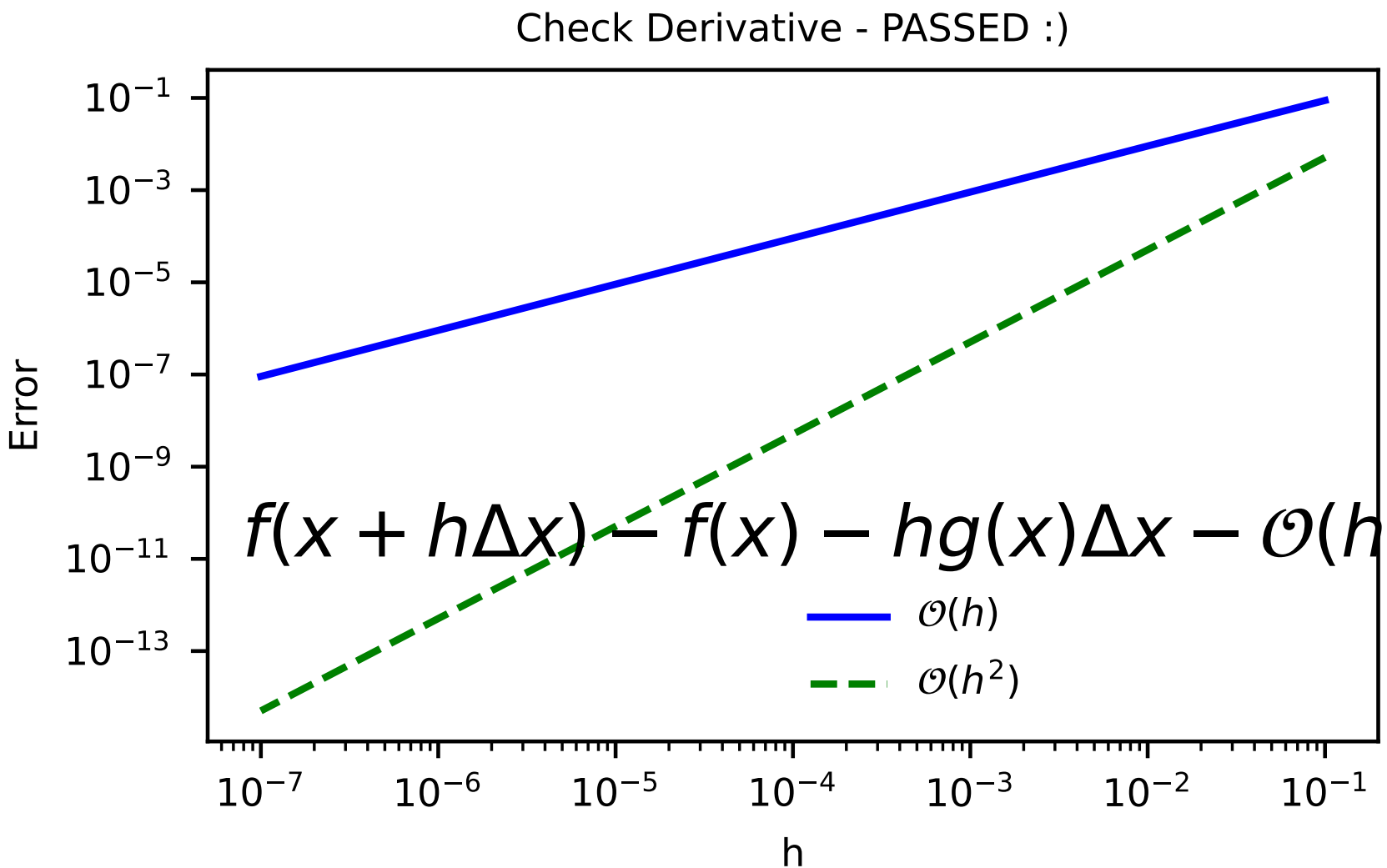

$$f(x + h\Delta x) - f(x) - hg(x)\Delta x - \mathcal{O}(h^2) =$$