Quiz VI

Use the techniques in sections 72 and 73 to find the first THREE non-zero terms of the Laurent series expressions of the following complex-valued functions:

(a) $\dfrac{2ze^z}{1+z}, |z| < 1.$

(b) $\sec(z) = \dfrac{1}{\cos(z)}, |z| \leq \dfrac{\pi}{2}.$